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By

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ABSTRACT

AN INTERVENTION-BASED EXAMINATION OF
WORK-FAMILY DECISION-MAKING SELF-EFFICACY AND
ANTICIPATED WORK-FAMILY CONFLICT

By

Alyssa Jill Friede

These is considerable research about the conflict that individuals experience managing the demands of work and family roles. However, this research fails to examine the experiences of professional students before they transition into work and family roles. Furthermore, there is little research on the effectiveness of attempts to help students with this transition. In the current study, I investigate the anticipated work-family conflict of medical students. I examine the effectiveness of an intervention designed to decrease anticipated work-family conflict by increasing work-family decision-making self-efficacy. The findings from this study suggest that both the work-family intervention and the control intervention are effective in enhancing work-family decision-making self-efficacy and decreasing anticipated time-based work-family conflict. Implications for future research and practice are discussed.

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INTRODUCTION

In the past 25 years, the number of dual-earner couples has markedly increased as has the total number of hours that couples are working (Bond, Thompson, Galinsky, & Prottas, 2002). Women are working more than ever before, while men are taking on increased responsibility for domestic responsibilities and childcare (Bond et al., 2002). These facts highlight the importance of research on work-family conflict, defined by Greenhaus and Beutell (1985) as a type of inter-role conflict in which the competing demands of work and family roles are incompatible and participation in one role makes participation in the other role more difficult. The effects of work-family conflict have been shown to be severe, including higher depression, increased alcohol use, increased psychological burnout, greater reporting of psychosomatic symptoms, decreased job satisfaction, and increased intention to turnover at work. (cf., Burke, 1988; Hammer, Brockwood, & Neal, 2001; Frone, Russell, & Cooper, 1993; see also Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005).

While considerable research attention has been paid to the construct of work-family conflict, surprisingly little attention has been paid to the concept of *anticipated* work-family conflict. Adopting the Greenhaus and Beutell (1985) definition leads to the following definition of anticipated work-family conflict: *the belief that participation in one's future work-role will interfere with participation in one's future family-role (and vice versa).* This anticipated work-family conflict could be experienced, for example, as individuals prepare to enter the workforce after college, when a new child is expected, when they plan career changes, when a spouse changes jobs, or when considering re-entering the workforce. In any situation where individuals expect their work or family

roles to change, they can anticipate work-family conflict between these two roles in the future. To be clear, anticipated work-family conflict can exist when only one role (work or family) changes and the other stays the same or when both are changing simultaneously.

In the current study, I build upon research conducted by Friede (2005) which examined the construct of anticipated work-family conflict (AWFC). Friede (2005) examined the nature of the construct, its antecedents, and its consequences among a sample of medical students. Building upon that research, in this study, I will conduct an intervention aimed at reducing AWFC among medical students. To do this, I focus on a the construct of work-family decision-making self-efficacy (WFDMSE).

I begin by clarifying the concept of AWFC and discussing its relevance to the work-family field. I then highlight critical variables in the nomological net of this construct. I then describe the experimental intervention that will be the focus of this study and discuss the proposed effects of this intervention through the presentation of study hypotheses.

Does Anticipated Work-Family Conflict Matter?

While the importance of work-family conflict as an individual and societal problem has become clear, one must consider whether the concept of *anticipated* work-family conflict is important in its own right. This concept stands at the confluence of two streams of research: work-family conflict and career decision-making. From each perspective, it is clear that there are several reasons why this topic merits attention from researchers and practitioners.

A work-family perspective. From the work-family perspective, there is considerable evidence that work-family conflict has detrimental outcomes for the individual and the organization (as mentioned above; Eby et al., 2005). Yet, most attempts to alleviate employee work-family conflict have been generated at the level of organizational policies and practices (e.g., on-site childcare, maternity leave, flextime; Kossek & Friede, 2006). However, recent arguments have been made that individuals themselves may have the opportunity to exert control over their lives in a way that enhances their ability to manage work and family demands. The creation of developmental opportunities to help individuals learn strategies for managing work and family demands may complement organizational-level interventions (Behson, 2002; Friedman, Christensen, & Degroot, 1998; Friedman & Friede, 2006).

However, once employees enter an organization and a particular position, they may have somewhat limited latitude regarding the strategies that they can use to balance work and family roles (e.g., one cannot use flextime if the organization does not allow it or the position is not amenable to it). On the other hand, as individuals enter new careers (e.g., after graduating college, switching organizations), they may have considerably more latitude in selecting careers, specialties, and jobs that will allow them to effectively manage work and family demands. Similarly, once individuals enter a marriage or have children, they may have limited latitude regarding the strategies that they can use to balance work and family. However, prior to entering relationship and family roles, individuals may be able to make relationship and family decisions (e.g., at what age to marry, how many children to have, selecting a partner who is willing to participate in childcare) that will allow them to better manage work and family demands. Thus,

understanding how individuals think about the conflict that they will experience between multiple life roles *before* entering them may facilitate the prevention or avoidance of actual work-family conflict (as opposed to waiting for it to occur and then seeking palliative strategies).

Additionally, individuals who enter their careers and jobs with realistic expectations about the work and family demands that they will face may be less affected by work-family conflict than those who were unprepared for the challenges that they face. Research in the work role entry literature has suggested that individuals who have more realistic information about the jobs that they enter (i.e., some negative information in addition to positive information) have better outcomes on-the-job, including lower attrition from the recruitment process, higher performance, and decreased voluntary turnover, (Phillips, 1998). However, this research has not focused on providing realistic information about the specific challenges that individuals will face balancing work and family in a new work role. To the extent that individuals are prepared with accurate information about the work-family demands that they will face on-the-job (i.e., the demands and challenges of balancing work and family for a particular job), these individuals may experience less work-family conflict and other negative outcomes once in their new roles. In other words, the anticipation of work-family conflict may be related to on-the-job experiences because the accuracy of expectations of conflict may be associated with the extent to which job expectations are met or unmet.

A career decision-making perspective. From a career decision-making perspective, considerable attention has been paid to how individuals make choices about what careers, specialties, and jobs to enter (Phillips & Imhoff, 1997). However, much of

this research has ignored the extent to which work-family concerns play a role in such decision-making (Barnett, Gareis, James, & Steele, 2003). A process model of individual career decision-making suggests that individuals who identify the need to find a new career engage in a number of decision-making steps. First, upon recognizing a problem (in some cases dissatisfaction with the current position, in other cases, an external need to find a new job/career – e.g., graduating from college, layoffs), individuals formulate a role-change strategy (e.g., identifying ways to change the situation, resources available), engage in a search for alternate roles (e.g., using internal and external resources), evaluate the possibilities and, in some cases, transition into a new position (Mihal, Sorce, & Comte, 1984).

Expectations and beliefs about the intersection of work and family roles may come into play at a number of points in this career decision-making process. For example, to the extent that one's current career interferes with effective functioning in the family role (i.e., work-interference-with-family, Greenhaus & Beutell, 1985), a discrepancy between one's current position and one's ideal position may exceed a level that is considered tolerable. For individuals entering the workforce for the first time, expectations regarding the work-family demands of a future role may also result in an expected disparity between ideal conditions for work-family balance and the opportunities provided by the position. Additionally, when individuals engage in a search for alternative roles, they may seek out information regarding the extent to which potential roles will enhance or reduce conflict between work and family roles and they may weigh that information in their decision-making. According to Gianakos (1999) "A quality decisional outcome is more likely when individuals rationally and systematically

evaluate career-related information..." (p.245). Therefore, because work-family issues are associated with important work-related outcomes (Eby et al.), a rational and systematic evaluation of work-family career-related information prior to role-entry is likely to be important.

However, little empirical research has examined the extent to which work-family issues are considered in career decision-making. Phillips and Imhoff (1997) note that women face increased challenges with career planning in recent decades due to the growing importance that they place on work and the continued importance placed on family. Russell and Rush (1987) found that women were aware of the need to address family considerations in career decision-making. Additionally, research on future life roles has tended to examine career and non-work choices separately. Barnett et al. (2003) note that most of the literature on college students' plans for the future focuses on choice of career and or course of study, with little attention paid to the interaction between non-work and work decision-making.

Overall, the issue of anticipated work-family conflict is also important from a career decision-making perspective. Career counselors attempting to help individuals identify and enter careers that will be satisfying may benefit from a greater understanding of how anticipated work-family conflict influences career decision-making. Additionally, an understanding of the extent to which a consideration of multiple life roles in career counseling benefits individuals and their employing organizations may also be helpful for career counselors.

What is Anticipated Work-Family Conflict?

Because research on anticipated work-family conflict is in its infancy, it is vital that a fuller understanding of what this construct really means is reached. The few published articles that have specifically discussed anticipated work-family conflict as a construct have offered only a basic definition of anticipated inter-role conflict. For example, in one anticipated work-family conflict article, the author states that "In contrast to previous studies on current perceptions of work-family conflict, this study examined future expectations for work-family conflict" (Burley, 1994, p.116). This first study on anticipated work-family conflict does not mention how the author adapted the work-family conflict scale that was used to assess future work-family conflict (Burley, 1994). A 1996 follow-up article on the same topic also does not provide much detail regarding the meaning of anticipated work-family conflict in a similar fashion to the 1994 paper (Livingston, Burley, & Springer, 1996). In this article, however, the authors elaborate on the measurement of anticipated work-family conflict in which they take a traditional work-family inter-role conflict scale (Kopelman, Greenhaus, & Connolly, 1984) and translate the sentences into a future tense. That is, a sample survey item reads "My future work *will* take up time that I *would* like to spend with my family and friends" (Livingston et al., 1996, p. 184, italics added).

Weer, Greenhaus, Colakoglu, and Foley (in press) examined the construct of expected work-family conflict as a measure of "students' perceptions of the potential for conflict or interference between their work and family roles after they embark on their careers" (p.14). Hallett and Gilbert (1997) also offer a *future difficulties* scale which was developed by Gilbert, Dancer, Rossman and Thorn (1991). It assesses the perceptions that young adults hold regarding the challenges and realities associated with having a

dual-career marriage. This future difficulties scale is similar to the construct of anticipated work-family conflict in that it assesses future challenges, yet distinct in that it does not directly address inter-role conflict. That is, it focuses on challenges within a domain (work or family) but does not reflect challenges that arise from conflict *between* roles (i.e., the interference of family life with work or vice versa). Friede (2005) examined the construct of "anticipated work-family conflict", and the findings from this research (which are the precursor to the current study) are discussed in greater detail below.

Researchers have also addressed related, yet distinct constructs. For example, career-marriage conflict focuses on the expected conflict between one's career and the career of one's spouse (Barnett et al., 2003). Work-family balance self-efficacy (Killian, Casper, Sitzman, Ellsbury, Burtrum, & Stephens, 2003) focuses on the beliefs that individuals hold about their ability to avoid work-family conflict and deal with work-family conflict when it occurs.

A number of researchers have addressed the *attitudes* that young adults hold towards their future roles. One such construct is called *attitudes towards multiple role planning* (ATMRP; Weitzman, 1994). Multiple role planning reflects intentions to balance work and family in the future. ATMRP is considered the general orientation that an individual holds regarding planning for the combination of career and family roles, such as confidence in the ability to integrate work and family roles, commitment towards having multiple roles, and feelings of autonomy regarding the ability to make choices about family and work roles for oneself. Another related issue concerns the attitudes that

individuals hold towards *future role-sharing* (e.g., sharing responsibilities for childcare equally with a spouse versus being the primary care-taker).

Beyond the limited research on anticipated work-family conflict, it is worthwhile to examine research on actual work-family conflict to discover how it has been defined and measured and how this may influence our understanding of anticipated work-family conflict. A 1985 article by Greenhaus and Beutell has largely been responsible for defining the work-family conflict construct. As mentioned earlier, they define work-family conflict as a form of inter-role conflict in which there are competing demands arising from an individual's participation in different roles (in this case, the work and family roles). Greenhaus and Beutell (1985) discuss three major forms of work-family conflict. The first is *time-based conflict.* This reflects the fact that individuals have a finite amount of time and that time spent at work cannot be spent with the family and vice versa. This form of inter-role conflict exists because time dedicated to one role makes it challenging to fill the requirements of a different role. Another type of work-family conflict that Greenhaus and Beutell (1985) discuss is *strain-based conflict.* This exists when strain in one role (e.g., tension, anxiety, fatigue, or irritability) makes participating in the other role more difficult. For example, stress from work may spillover into the family role and affect one's ability to have a healthy and satisfying family life. Finally, Greenhaus and Beutell (1985) describe *behavior-based conflict.* This is when certain patterns of behavior within one role are incompatible with behaviors necessary for effective functioning in another role. For example, the authors discuss how managers may be expected to display aggressiveness and objectivity in the workplace and that they may be expected to be warm and nurturing in their home environments. The

incompatibility of these two types of behaviors may cause behavior-based work-family conflict. Research has supported the existence of time- and strain-based conflict but behavior-based conflict has been difficult to operationalize and is less supported by research (Kelloway, Gottlieb, & Barham, 1999).

Furthermore, Greenhaus and Beutell (1985) discuss another key issue in the conceptualization of work-family conflict, the directionality of the conflict. The authors distinguish between the perception that work is interfering with family and the perception that family is interfering with work. They propose that an individual's response to a situation with competing role demands will determine whether it is perceived as *family-interference-with-work* or *work-interference-with-family*. For example, if a person chooses to attend a meeting at work rather than his child's school performance, this situation will be perceived as work-interfering-with-family. However, if the opposite choice was made, it would be perceived as family-interfering-with-work. To this end, the authors argue that it is important to develop work-family conflict scales that contain items that reflect both directions of role interference.

Research in the work-family conflict area has attempted to predict the different types of conflict and the directionality of the conflict from different antecedents and examined the different outcomes expected from these types of conflict. For example, in a longitudinal study of work-family conflict conducted by Kelloway et al. (1999), results showed that work-interference-with-family could be distinguished from family-interference-with-work and that strain-based conflict could be distinguished from time-based conflict. The authors found that only strain-based family-interference-with-work at Time 1 predicted stress and intent to turnover in a job at Time 2, while time-based work-

interference-with-family at Time 2 was predicted by stress at Time 1. Similarly, Hammer et al. (2001) found that family-interference-with-work predicted depression while work-interference-with-family did not. Frone et al. (1992) found that work-interference-with-family was predicted by job stressors while family-interference-with-work was predicted by family stressors and family involvement.

Thus, findings from the literature on work-family conflict suggest that these six dimensions are relevant to the nature of that construct. For this reason, they may also be relevant to the related construct of anticipated work-family conflict. Because anticipated work-family conflict is being defined as the belief that participation in one's future work-role will interfere with participation in one's future family role (and vice versa), it is important to recognize that individuals may anticipate time-, behavior-, and/or strain-based conflict in either direction (work-interference-with-family and/or family-interference-with-work) and to measure the construct accordingly. A measure of anticipated work-family conflict was developed by Friede (2005). An 18-item work-family conflict scale created by Carlson, Kacmar, and Williams (2000) was altered to reflect the measurement of "anticipated" conflict. Therefore, all items were rewritten in the future tense. Six types of anticipated work-family conflict were measured including anticipated behavior-based work-interference-with-family (*behavior-based WIF*), anticipated behavior-based family-interference-with-work (*behavior-based FIW*), anticipated strain-based work-interference-with-family (*strain-based WIF*), anticipated strain-based family-interference-with-work (*strain-based FIW*), anticipated time-based work-interference-with-family (*time-based WIF*) and anticipated time-based family-interference-with-work (*time-based FIW*).

Carlson et al. (2000) found that a structural equation model with six correlated latent factors fit their data best. Friede (2005) also conducted a CFA to examine whether the same six factors emerged in the measure of AWFC. A six factor model was compared to a three factor model (which reflected time-, strain-, and behavior-based conflict – ignoring direction of conflict), a two factor model (work-interference with family and family-interference-with-work – ignoring type of conflict), and a unidimensional model (all anticipated work-family conflict items). Factors were allowed to correlate. Results indicate that the six dimensional model of anticipated work-family conflict fit the data significantly better than the alternative models (Friede, 2005). This CFA uses the same methods as Carlson et al. (2000) and replicates their findings for the anticipated work-family conflict scale. Based on the findings from the confirmatory factor analysis, scale scores for each of the six dimensions were created. The reliability of the six scales ranged from $\alpha = .75$ (time-based FIW) to $\alpha = .88$ (strain-based FIW). Thus, there is sufficient evidence for the existence of six forms of AWFC, similar to the six forms of work-family conflict described by Greenhaus and Beutell (1985).

Relationship between AWFC and WFC. To this point, I have argued the importance of the construct of AWFC to the work-family and career planning fields and have defined the construct in detail. However, as noted earlier, the purpose of this study is to develop an intervention that addresses issues of AWFC among medical students. One key question becomes whether greater levels of AWFC are associated with more or less experienced work-family conflict (once in work and family roles). Operating under the assumption that it is desirable to reduce actual work-family conflict, interventions

may be aimed at decreasing or increasing AWFC, depending upon its relationship to actual work-family conflict.

On the one hand, AWFC may serve as a warning sign to individuals that directs them to make choices that effectively allow them to avoid or cope with actual work-family conflict. For example, individuals who anticipate a great deal of work-family conflict may make decisions that help them to avoid experiencing the levels of conflict that they anticipate (e.g., delaying childbirth, selecting a less demanding career). Additionally, high levels of AWFC may act as a "realistic preview" of what is to come, and help individuals to develop accurate expectations that are then met on-the-job (Phillips, 1998). If this is the case, interventions might be aimed at raising levels of AWFC to a realistic level.

On the other hand, AWFC may serve as a relatively accurate marker of the work-family conflict that individuals will actually experience. In other words, individuals who expect to experience more conflict actually do experience more conflict. In this case, the AWFC construct provides insight into how much conflict individuals will experience. Thus, interventions that genuinely providing individuals with the skills/resources/information that are helpful in managing multiple life roles will reduce levels of AWFC *and* actual work-family conflict. The reduction in AWFC, in this case, serves as a genuine indicator that individuals have gained preparedness to handle multiple roles in a way that allows them to avoid or alleviate actual work-family conflict.

There has been limited research connecting AWFC to actual work-family conflict. Friede (2006) collected follow-up data from the medical students in her 2005 study approximately one year after the initial data collection. At the time of the follow-up,

participants were asked to report their actual work-family conflict in their medical residency. Friede (2006) found a positive correlation between anticipated behavior-based conflict and actual behavior-based conflict in both directions (WIF and FIW). Anticipated strain-based WIF family was significantly and positively correlated with actual strain-based WIF, but the same was not true for strain-based FIW (i.e., the correlation was not significant). Anticipated time-based WIF and FIW were not significantly correlated with the actual experiences of these forms of work-family conflict, respectively. Overall, Friede (in progress) found only positive or non-significant correlations between anticipated and actual work-family conflict (no negative correlations), suggesting that individuals who expect more work-family conflict actually do experience more work-family conflict, overall.

This supports the notion of AWFC as a "marker variable" that points to future levels of actual work-family conflict. The current study therefore builds upon these findings and attempts to develop an intervention that reduces levels of AWFC, with the intention that this will also reduce levels of actual work-family conflict. The AWFC variable will hopefully serve as an indicator that the intervention has taught students to make decisions that will help them prepare for their multiple roles. Note that while it is beyond the scope of the current study to examine the relationship between AWFC and actual work-family conflict (because of the time-lag involved), longitudinal data collection regarding the effectiveness of the intervention in alleviating actual work-family conflict is planned.

A Conceptual Model of Key Study Variables

Figure 1 provides a basic conceptual model of the key constructs that will be examined in this study (note that moderator variables will be addressed later in the paper). Below, I describe the major components of this model and their relationship to AWFC and highlight previous research supporting the relationships between variables included in the model.

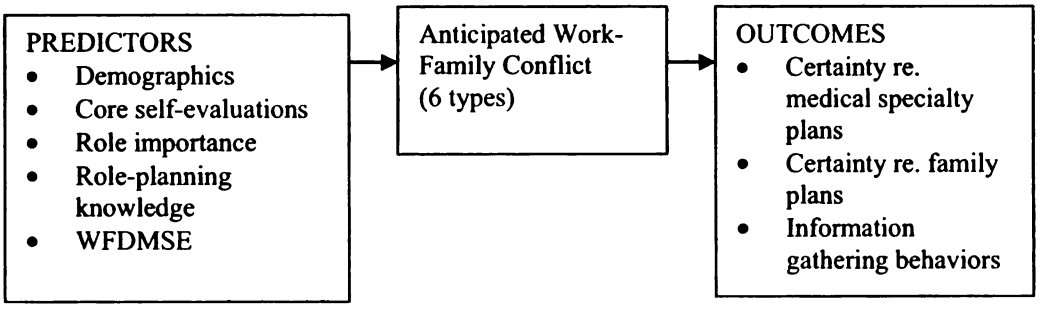

Figure 1. Conceptual Model of Key Constructs

Friede (2005) examined some important predictors of AWFC. In the current study, I build upon that research by replicating some of the analyses conducted by Friede (2005; ie., demographics, core self-evaluations, role importance, and role-planning knowledge as predictors of AWFC). Additionally, I introduce a new construct of interest, work-family decision-making self-efficacy (WFDMSE) and conduct an in-depth examination of the role that WFDMSE plays in influencing AWFC. Specifically, I conduct an experimental intervention to manipulate WFDMSE and examine the effects on AWFC. This enhances our understanding of this construct as a predictor of AWFC, because it allows for stronger inferences of causality.

In the following sections, I first describe the relationships between predictors and AWFC that are being replicated from Friede (2005). These relationships are being

analyzed only at the initial data collection (prior to the intervention). Next, I introduce the construct of WFDMSE and present hypotheses regarding its relationship with AWFC.

Demographics. Of the limited research on AWFC and related constructs, demographics variables are not frequently examined as predictors of AWFC because they are controlled for (either statistically or by limiting the sample) and thus their direct effects on AWFC are unknown. For example, McCracken and Weitzman (1997) controlled for education level in their study of attitudes towards multiple role-planning because they found it to be correlated with the construct. Also, the McCracken and Weitzman (1997) study only included women while Hallett and Gilbert's (1997) study included only female, never-married, upper-classmen thus controlling for year in school, gender, and marital status through the selection of the sample. While Kerpelman and Schvaneveldt (1999) included both men and women in their study, they only included participants who were never married, never a parent, and were within the age range of 18 to 25. Many studies assess the race of the participants, controlling for its effects on the outcomes of interest. (cf., Livingston et al., 1996).

Research conducted on actual work-family conflict also tends to consider demographics, yet limited conclusions have been reached regarding their influence on work-family conflict. Demographics and background characteristics have been shown to comprise almost 25% of the predictors included in research on the work-family interface (e.g., age, race, gender, and marital status). Lockwood, Casper, Eby and Bordeaux (2002) note that questions about children were "almost non-existent in this research" (p. 16). As one example of an investigation of demographics as a predictor of work-family conflict, Burke (1988) found that being married was associated with increased work-

family conflict but that age, gender, education level, and years on the job were not. However, parental status was not assessed in this study. Other studies have also examined the influence of demographic variables with mixed results (cf., Frone et al., 1992). For example, different researchers have found that women experience greater conflict (e.g., Behson, 2002), less conflict (e.g., Parasurman & Simmers) and no differences in conflict (e.g., Duxbury & Higgins, 1991) as compared to men.

In the current study, I assess the relationship between a number of demographic variables and AWFC. Friede (2005) also examined these relationships. In cases where Friede (2005) did not find significant results, I nonetheless provide directional hypotheses about the expected relationships because the non-significant findings of Friede (2005) may not replicate in the current sample.

This study will examine the relationship between age and AWFC. Older individuals are expected to be considering both work and family decisions more seriously, because they are closer in proximity. Therefore, concerns about balancing work and family may be particularly salient. For the current sample of medical students, both the demands of managing a medical career and the demands of managing a family may become more salient with age as greater exposure to those roles is gained. Friede (2005) found that age was only significantly positively correlated with one of the six types of AWFC (strain-based FIW). However, all correlations between age and AWFC were in the positive direction. Therefore, I propose the following hypothesis:

Hypothesis 1: Older participants will anticipate greater (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW.

In a similar vein, students who are farther along in school are closer to actually having a job than those who are earlier in their education. The reality of balancing their work and non-work lives as professionals is looming closer in the future. While age and year in school are likely to be correlated, there may be particular insights that are gained through progressing through medical school that are unrelated to age. For medical students, those who are further along in school will have had greater exposure to the different career options that lie ahead of them. They will have learned more about the different specialties formally in the classroom as well as had more exposure to informal education from other students about the demands of different medical careers (e.g., through knowing other students who have graduated already and begun their residency programs). Therefore, we also expect students who are farther along in medical school to anticipate greater work-family conflict. However, Friede (2005) did not find any significant correlations between year in school and any of the six types of AWFC.

Hypothesis 2: Participants who are farther along in medical school will anticipate greater (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW.

In today's society, women are still taking on the primary role of providing childcare (Bond et al., 2002). And yet, although still working fewer hours outside of the home than men, women in the workforce are more educated than men and are more likely to be managers and professionals than men (men are more likely to hold blue-collar jobs than women; Bond et al., 2002). Also, mothers have been shown to have less time to themselves than men, according to the 2002 Highlights of the National Study for the Changing Workforce (Bond et al., 2002). These societal-level differences between the

lives of men and women may mean that women can expect to be bearing the greater burden for family-care. With regard to medical students, in the 2001-2002 academic year, 47.6% of new entrants to medical school were women (Women in U.S. Academic Medicine, 2004, para. 3). The women in this study are entering into a challenging profession and yet will likely assume the primary responsibility for childcare in their households (see above). Interestingly, Friede (2005) found that the only significant differences between men and women emerged in the relationship between time-based and behavior-based work-interference-with-family. Women actually anticipated *less* work-interference-with-family in those two cases. A reasonable explanation for this is that women were planning to ensure that their medical career did not intrude on their family life. Given this logic, women may be more concerned than men about their family lives interfering with work (although these correlations were not significant in the Friede (2005) study). Given the findings from Friede (2005), I propose:

Hypothesis 3: Female participants will anticipate greater (a) time-based FIW, (b) strain-based WIF, and (c) behavior-based WIF.

Hypothesis 4: Female participants will anticipate less (a) time-based WIF, (b) strain-based WIF, and (c) behavior-based WIF.

Marital status may also affect the anticipation of work-family conflict. Similar to the predicted effects of age, those individuals who are married or have long-term partners may be more likely to have children in the near future (as compared to those who have not yet found a spouse). Further, those individuals who are married or have long-term partners may have had important discussions with their partners about how the couple will manage work and family responsibilities, whereas single individuals may have spent

considerably less time thinking and talking about this issue. Again, this attention placed on future balance may lead to an awareness of the challenges of balancing work and family, and therefore an increased reporting of anticipation of work-family conflict. With regard to medical students, the reasoning above is expected to apply. Further, because of the specific constraints associated with the completion of medical school (e.g., paying off large debt from schooling, choosing a residency program, etc.), these married/partnered students may be especially likely to have concerns about balancing work and family. Interestingly, Friede (2005) found that married individuals anticipated significantly less behavior-based FIW but that none of the other correlations were significant. However, the relationships for anticipated strain-based conflict and behavior-based conflict were all in the negative direction while the relationships for anticipated time-based conflict were in the positive direction. Perhaps married individuals are more aware of the difficulties of negotiating the time-demands of marriage and a family (because they are currently negotiating the time-demands of marriage and medical school) but they have already learned that the stress and behaviors from different roles do not inhibit performance in the other roles. Based on the findings from Friede (2005), I predict:

Hypothesis 5: Married participants will anticipate greater (a) time-based WIF and (b) time-based FIW.

Hypothesis 6: Married participants will anticipate less (a) strain-based WIF, (b) strain-based FIW, (c) behavior-based WIF, and (d) behavior-based FIW.

Parents (as compared to non-parents) may anticipate different amounts of work-family conflict because they may be more aware of the excessive demands that children place on their time. Because prior research on future roles has tended to exclude parents

from their samples, this relationship will be particularly interesting and informative. In the case of medical students, medical school is an extremely challenging environment that may equal (if not exceed) the rigors of actually practicing medicine. Because medical student-parents are already managing the demands of their school and family lives, they may be more aware of the challenges that lie ahead and anticipate more conflict. However, Friede (2005) did not find any significant relationships between parental status and any of the six forms of AWFC. I maintain the original hypothesis that parents will anticipate greater levels of conflict.

Hypothesis 7: Participants who are parents will anticipate greater (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW.

One criticism of Friede (2005) is that the effects of being in a committed, romantic relationship were unstudied. Indeed, individuals with significant others may have spent more time thinking about and discussing the challenges of balancing work and family in the future. Additionally, individuals with significant others may be more likely to enter marital and parental roles in the nearer future. Thus, this may make concerns about managing work and family demands more salient. Therefore, I also propose the following hypothesis:

Hypothesis 8: Participants in romantic relationships will anticipate greater (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW.

Personality. There has been very little research examining the relationship between personality and beliefs about future roles. Research from the literature on actual

work-family conflict can be useful in understanding which personality variables may predict anticipated work-family conflict. Recently, researchers have begun to consider the role of personality in the experience of work-family conflict. For example, research has addressed the role of negative affectivity (cf., Carlson, 1999; Stoeva, Chiu & Greenhaus, 2002) and the "Big Five" (cf., Bruck & Allen, 2003) in the experience of work-family conflict.

A book chapter by Friede and Ryan (2004) argues that core self-evaluations will predict work-family conflict and that people with more positive core self-evaluations will experience less work-family conflict. Core self-evaluations are considered the fundamental premises individuals hold about themselves, or the extent to which individuals possesses a positive self-concept (Judge, Erez, & Bono, 1998). The four traits that comprise this higher level construct are self-esteem, generalized self-efficacy, locus of control and emotional stability. Core self-evaluations are a latent, multivariate construct or a compound personality variable in that it is comprised of four more specific traits (Judge et al., 1998).

The work of Friede and Ryan (2004) argues that individuals who have more positive core self-evaluations will experience less work-family conflict. They suggest that individuals with positive core self-evaluations may select environments for themselves that are more supportive of demands in other domains, such as selecting a job that is flexible and allows the individual to meet family demands (Diener, Larson, & Emmons, 1984; Judge et al., 1998). Thus, they experience less work-family conflict than individuals with more negative core self-evaluations. It is also possible, according to Friede and Ryan (2004), that individuals simply perceive their environments differently

based on their core self-evaluations. That is, individuals with negative core self-evaluations perceive the environments from their multiple life domains more negatively and as less supportive of obligations in other domains (Fogarty et al., 1999; Larsen, 1992; Moyle, 1995). Therefore, they feel as though they have more conflict in their lives. Further, individuals with positive core self-evaluations may use more effective coping styles to handle the demands of their work and non-work lives, and in doing so, decrease the amount of conflict that they experience (Aryee, Luk, Leung, & Lo, 1999). Friede (2005) examined the relationship between core self-evaluations and anticipated work-family conflict and found that core self-evaluations were significantly negatively correlated with all six forms of anticipated work-family conflict (with the strongest relationships existing, not surprisingly, between core self-evaluations and strain-based conflict). Based on these findings, I propose the following:

Hypothesis 9: Participants with higher core self-evaluations will anticipate less (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW.

Work and family role importance. An additional factor that may influence how much conflict individuals anticipate is the importance that they place on work and family roles as critical components of their lives. In the small literature on future roles, role-importance has emerged as a popular attitudinal construct. For example, Kerpelman and Schvaneveldt (1999) compared the importance that males and females placed on their career, marital, and parental roles. Rajadhyaksha and Bhatnagar (2000) examined gender and age differences in role-importance in married dual-career couples in India. Bu and McKeen (2000) investigated differences between Canadian and Chinese business

students in the importance that they placed on the three life roles. Friede (2005) examined role importance and found that greater importance placed on the work role was associated with greater anticipated behavior-based WIF, greater anticipated strain-based WIF, and less anticipated time-based FIW (when controlling for demographics, personality, and other attitudinal constructs). More broadly, this implies that individuals who place a high importance on their work role expect that work will interfere with their family lives but that family life will not interfere with work. Therefore, the following hypotheses are proposed:

Hypothesis 10: Participants who place a greater importance on the work role will anticipate greater (a) time-based WIF, (b) strain-based WIF, and (c) behavior-based WIF.

Hypothesis 11: Participants who place a greater importance on the work role will anticipate less (a) time-based FIW, (b) strain-based FIW, and (c) behavior-based FIW.

Friede (2005) also examined the relationship between the importance that individuals place on marital and parental roles and their AWFC. Friede (2005) found that individuals who place a greater importance on marital and parental roles anticipated greater time-based FIW. Those who place a greater importance on the parental role also anticipated less strain-based WIF. These findings parallel the findings from work role importance in that the people who place a high importance on their family life expect family to interfere with work but not the reverse. For the current study, I merge the parental and marital roles into a combined "family" role importance. Therefore, I propose the following hypotheses for the current study:

Hypothesis 12: Participants who place a greater importance on the family role will anticipate greater (a) time-based FIW, (b) strain-based FIW, and (c) behavior-based FIW.

Hypothesis 13: Participants who place a greater importance on the family role will anticipate less (a) time-based WIF, (b) strain-based WIF, and (c) behavior-based WIF.

Role-planning knowledge. Another predictor of AWFC that Friede (2005) investigated was role-planning knowledge. Role-planning knowledge is defined as the belief that one knows how to plan for holding multiple roles and it is measured as a self-assessment of knowledge (Weitzman & Fitzgerald, 1996). Friede (2005) examined the relationship between role-planning knowledge and the six forms of anticipated work-family conflict. When controlling for demographics and personality, role-planning knowledge explained incremental variance in all six forms of anticipated work-family conflict. In all cases, greater role-planning knowledge was associated with decreased anticipation of work-family conflict. Although Friede (2005) incorporated other attitudinal constructs in her study, role-planning knowledge was the strongest and most consistent predictor of the six forms of AWFC. Therefore, in the current study I predict:

Hypothesis 14: Participants with greater role-planning knowledge will anticipate less (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW.

Work-family decision-making self-efficacy (WFDMSE). An additional construct that was not included in Friede (2005) is relevant to the prediction of AWFC. Although this construct, career decision self-efficacy (CDSE), is focused on career choice (without a specific consideration of non-work roles), it serves as the foundation for thinking about

how self-efficacy may influence AWFC. CDSE is defined as one's confidence in his/her ability to successfully investigate and decide upon a career (Taylor & Betz, 1983). The Taylor and Betz (1983) measure of CDSE has five dimensions: self-appraisal, gathering occupational information, planning, problem-solving, and goal selection (based on Crites' 1961 five Career Choice Competencies). Betz and Hackett (1981) found that as individuals engaged in behaviors such as goal setting, gathering occupational information, and problem-solving, their CDSE increased. Gianakos (1999) noted that individuals with greater CDSE have been shown to have greater self-esteem overall, to consider a wider range of occupations and are more committed to their career decisions (Church, Teresa, Rosebrook, & Szendre, 1992; Lent & Hackett, 1987; 1987; Robbins, 1985)

I argue that a new, parallel construct, work-family decision-making self-efficacy (WFDMSE), is likely to be related to individuals' experiences of AWFC (Note that the original authors of the CDSE scale used the term "decision-making" but changed it due to copyright issues). I use the term "decision-making" for the work-family variable to highlight the importance of the decision-making *process*. WFDMSE can be defined as the belief that one is capable of investigating and making decisions regarding the management of work and family roles. Individuals who have greater confidence in their ability to make decisions that will allow them to balance work and family are expected to anticipate less work-family conflict. Similar to CDSE, WFDMSE can be thought of as having five components: self-appraisal regarding goals for balancing work and family, gathering information about balancing work and family in different careers and family situations, selecting goals for how to balance work and family, planning for entering

work and family roles that meet one's goals, and problem-solving when challenges arise to pursuing one's work and family goals. In the current study, I choose to focus on self-appraisal, gathering information, and goal selection due to the time constraints associated with measuring and manipulating self-efficacy along all five dimensions.

Note that this construct is similar to role-planning knowledge (which emerged as an important construct in earlier research). The key difference between role-planning knowledge and WFDMSE is that WFDMSE directly assesses confidence whereas role-planning knowledge is an evaluation of perceived knowledge level. These constructs are expected to be positively correlated. Both of these constructs are also distinct from AWFC. While the AWFC construct is focused on how much conflict one expects to experience, WFDMSE is focused on confidence in one's own ability to seek out information and plan for making decisions regarding work and family roles, and role-planning knowledge focuses on self-assessed knowledge. The reason that I choose to focus on WFDMSE in the current study (in addition to role-planning knowledge) is the emphasis that research on careers has placed on investigating CDSE and the existing evidence that CDSE can be increased through interventions. Therefore, I propose the following hypotheses:

Hypothesis 15: Participants with greater WFDMSE will anticipate less (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW.

Intervention Influencing WFDMSE

A critical component of the current study is the fact that I conduct an intervention intended to increase participants' WFDMSE to examine the causal effects on AWFC.

This is valuable for a number of reasons. One major criticism of the work-family field is the reliance on self-report cross-sectional data. Therefore, one important area for future research is to manipulate key predictor variables to examine their relationship with AWFC and other important outcome variables (e.g., certainty regarding relationship, family, and career plans). Experiments have long been considered an important research method in psychological research because they facilitate the inference of causality which is critical in determining the nature of the relationship between constructs (Shadish, Cook, & Campbell, 2001). Additionally, the use of experimental manipulations overcomes many of the limitations of cross-sectional self-report studies (e.g., common method bias; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Additionally, an important component of psychological research is the evaluation of the effectiveness of experimental and real-world interventions. Within the American Psychological Association, there is a division called the "Evaluation, Measurement, and Statistics Division" (American Psychological Association, n.d.). The American Evaluation Association (n.d.) also emphasizes the evaluation of training programs. Such evaluations are valuable for the improvement of the program or intervention and for making decisions regarding future programs or interventions (Donaldson & Christie, 2006). There is a growing recognition of the importance of evaluation for the progress and effectiveness of psychological research. For example, research focused on employee training and development often considers the effectiveness of training programs. Kirkpatrick (1994) highlighted the importance of evaluating a number of training outcomes, including reactions, learning, transfer of training, and bottom-line results. Therefore, as a supplement to correlational research on work-family topics, it is an

important step to evaluate the effectiveness of work-family interventions, whether they are at the individual, group, or organizational level.

More specifically, in the current study, I randomly assigned medical students to one of two intervention conditions: a CDSE intervention condition (CDSE; Career condition), and a WFDMSE intervention condition (Work-family condition). The goal of the Work-family condition is to raise participant levels of WFDMSE relative to the Career condition.

I have chosen to focus on career decision self-efficacy as a control condition because it parallels the Work-family condition in important ways that control for alternative explanations of the impact of the intervention. For example, the Work-family condition might boost mood or influence participants overall levels of self-efficacy (as opposed to self-efficacy specifically for work-family decision-making) and this might be related to AWFC. By focusing on self-efficacy in the Career condition as well, this problem is mitigated. In other words, it is critical to understand whether influencing the more specific construct of self-efficacy related to decision making about *work and family* is important. Additionally, many professional students may already be getting support related to decision-making about careers (that does not address work and family issues) and a practical question is whether the *additional* focus on work and family roles is important. It is important to note that I will assess key study variables prior to the intervention (Time 1), immediately following the intervention (Time 2), and after a two week time-lag (Time3). Prior research focused on self-efficacy related to career decision-making has utilized this same time-lag (Luzzo, Funk, & Strang, 1996). Therefore, for the purposes of comparing this study to previous research and addressing

the potential criticism that the effects of the intervention are limited to the immediate time and setting, I find it valuable to also include a follow-up after two weeks.

The intervention conditions were designed utilizing three of Bandura and Adams' (1977) mechanisms for enhancing self-efficacy: performance accomplishments, observational learning, and verbal persuasion (described in greater detail in the Method section). The content of the interventions will focus on enhancing self-efficacy for work-family decision-making or career decision-making in the following areas: self-appraisal, gathering information, and goal selection (based on Crites' 1961 career competencies). I will examine the effects of the intervention conditions on key study variables. Table 1 depicts the expected results of the intervention.

Table 1

Expected Differences Across Conditions in Key Study Constructs at Three Assessment Points.

Variable	Time 1	Time 2	Time 3
WFDMSE	WF = Career	WF > Career	WF > Career
CDSE	WF = Career	WF < Career	WF < Career
AWFC (6 types)	WF = Career	WF < Career	WF < Career

Note. WFDMSE = Work-family Decision-making Self-efficacy. CDSE = Career Decision Self-efficacy. AWFC = Anticipated Work-family Conflict. WF = Work-family condition. Career = Career condition.

When examining the effects of the intervention, it is important to consider whether the Work-family intervention does, in fact, increase WFDMSE more so than the Career intervention. Conversely, the Career intervention should increase CDSE more so than the Work-family intervention. Thus, the following hypotheses are proposed:

Hypothesis 16: Participants in the Work-family condition will show greater WFDMSE than those in the Career condition after the intervention.

Hypothesis 17: Participants in the Career condition will show greater CDSE than those in the Work-family condition after the intervention.

As noted earlier, I expect higher WFDMSE to be associated with lower AWFC. Therefore, I anticipate that one effect of the Work-family condition will be to lower AWFC.

Hypothesis 18: Participants in the Work-family condition will anticipate less (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW after the intervention than those in the Career condition.

With regard to the impact of the intervention, it is important to consider the possibility that not all individuals will react in the same way to the intervention. In fact, there may be systematic differences between individuals that influence their reaction to the intervention. A number of variables that were discussed above as predictors of AWFC may also be potentially critical moderators of the impact of the intervention in increasing WFDMSE. Broadly, I hypothesize that those individuals who are the most motivated to learn how to make decisions regarding work and family (i.e., those most concerned about how they will balance work and family) will show the greatest increases in WFDMSE from the work-family intervention (based on Noe, 1986). In other words, the intervention will be most effective in increasing WFDMSE for those who are motivated to learn about work-family decision-making.

Four demographic characteristics may influence the extent to which individuals are motivated to learn about work-family decision-making: gender, age, marital status, and relationship status. With regard to gender, there is evidence that women play a

greater role in caring for children and taking care of household chores than do men (Bond et al., 2002). Since all participants in this study intend to become doctors, one can argue that work-family concerns are more salient to women and that they are therefore more likely to be motivated to learn about work-family decision-making. Thus, the intervention is therefore potentially more meaningful and important for them. The following hypothesis is proposed:

Hypothesis 19: In the Work-family condition, female participants will show a greater increase in WFDMSE than male participants.

Additionally, older students, those who are married, and those with significant others are more likely to be close to starting a family than those who are younger or single. Therefore, these students may be more motivated to learn about work-family decision-making. Thus, the following hypotheses are presented.

Hypothesis 20: In the Work-family condition, older participants will show a greater increase in WFDMSE than younger participants.

Hypothesis 21: In the Work-family condition, married participants will show a greater increase in WFDMSE than unmarried participants.

Hypothesis 22: In the Work-family condition, participants with significant others will show a greater increase in WFDMSE than participants without significant others.

Additionally, individuals differ in the extent to which they place importance on the family role. I hypothesize that individuals who place a higher importance on the family role will be more motivated to learn from the work-family intervention and that it will therefore have a stronger effect on those individuals. Therefore, I propose the following hypothesis:

Hypothesis 23: In the Work-family condition, participants higher in family role importance will show a greater increase in WFDMSE than participants lower in family role importance.

Finally, personality may influence the effectiveness of the work-family intervention in increasing levels of WFDMSE. Individuals with more positive core self-evaluations feel like they are in control over their lives and that they have the capacity to influence their lives in positive ways. Therefore, individuals with positive core self-evaluations who are in the Work-family condition may be more likely to believe that they have the capacity to make decisions about balancing work and family. Therefore, they are more likely to pay attention to the skills and guidance provided in the intervention than those lower in core self-evaluations (who are more likely to ignore the intervention, feeling that it cannot help them). In other words, individuals with more positive core self-evaluations are expected to have a greater increase in self-efficacy as a result of the intervention than those lower in core self-evaluations.

Hypothesis 24: In the Work-family condition, participants higher in core self-evaluations will show a greater increase in WFDMSE than participants lower core self-evaluations.

Outcomes of AWFC and WFDMSE

Friede (2005) also examined potential outcomes of AWFC. In the current study, I replicate some of the more prominent findings regarding the outcomes of AWFC in that study and also examine the impact of the WFDMSE on those outcomes of interest. It is important to consider the potential outcomes of anticipated work-family conflict. While the anticipation of conflict may be distressing in its own right, if this construct turned out to be unrelated to the career and family decision-making of individuals and their eventual

work-family conflict (once in work and family roles), its merit as a research focus and opportunities for intervention would be limited. On the other hand, if anticipated work-family conflict is shown to be a driver of important outcomes, research aimed at addressing work-family issues prior to role entry is extremely valuable.

I have argued that higher WFDMSE is expected to result in decreased AWFC. Therefore, all hypotheses regarding the relationship between AWFC and outcomes should also replicate for the relationship between WFDMSE and these same outcomes in the opposite direction. Resulting hypotheses are therefore presented below following the hypotheses regarding the relationship between AWFC and outcome variables.

Certainty regarding medical specialty plans and family plans. Both theory and research suggest that AWFC may be related to work and family decisions. The social cognitive theory of career development sheds light onto this relationship (Lent, Brown, & Hackett, 1994). This theory argues that individuals will pursue careers that they think they will be able to be successful in (self-efficacy) and that they believe will lead to the outcomes that they desire (outcome expectations; Lent et al., 1994). To the extent that individuals expect that certain personal and professional choices will lead to an undesirable outcome (work-family conflict) they will be motivated to seek out and pursue alternative careers.

An example of this process might be a medical student who plans to become an Obstetrician and decides to talk to an Obstetrician about the pros and cons of this specialization. Upon talking with the Obstetrician, the medical student learns about the demanding and unpredictable hours of this specialization, and therefore anticipates work-family conflict. Because the medical student does not want to experience considerable

work-family conflict, she might become less certain about her decision to be an Obstetrician and seek out alternative specialization options. Additionally or alternatively, she might become less certain about her relationship and family plans and seek out alternatives (e.g., delaying marriage or childbirth, reducing the number of desired children).

Thus, theory suggests that individuals who anticipate greater levels of work-family conflict may be less certain about their work and family plans. Friede (2005) examined the relationship between AWFC and certainty regarding medical specialty and family (marital and parental) plans. In the current study, I also examine these types of certainty. With regard to certainty regarding medical specialty plans, Friede (2005) found that greater certainty about one's choice of medical specialty was associated with lower levels of four types of AWFC: strain-based conflict (both directions) and time-based conflict (both-directions). In other words, those individuals who expected the greatest amount of time-based and strain-based conflict were the least certain about their future career plans. This could imply that individuals who are anticipating a great deal of work-family conflict are continuing to search for potential alternatives that might result in less conflict. Note that the reverse direction of causality is also possible (i.e., that individuals who are unsure about which career path they plan to follow expect the most work-family conflict, perhaps because they are unable to prepare for and develop strategies for balancing work and family since they are uncertain of their work plans).

In the Friede (2005) study it was not possible to test the direction of causality because it was a correlational study. Because I gather data at three time points in the current study, I can examine the direction of causality between these two constructs.

Based on the social cognitive theory of career development, I expect the data to support the notion that AWFC *causes* a lack of certainty regarding medical specialty plans (rather than the reverse direction of causality; see Figure 2). Therefore, the following hypotheses are proposed regarding the relationship between AWFC and certainty regarding medical specialty plans. As noted above, hypotheses regarding the relationship between WFDMSE and this outcome are also included (see Figure 2).

Hypothesis 25: Individuals who anticipate greater (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW will report less certainty in their choice of medical specialty (regardless of condition).

Hypothesis 26: The paths from anticipated *(a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW to certainty regarding medical specialty plans (i.e., the solid black paths in Figure 2) will be stronger than the paths from certainty regarding medical specialty plans to anticipated (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW (i.e., the dashed black paths in Figure 2).*

Hypothesis 27: Over time, individuals with greater WFDMSE will report more certainty in their choice of medical specialty (regardless of condition).

Hypothesis 28: The paths from WFDMSE to certainty regarding medical specialty plans will be stronger than the paths from certainty regarding medical specialty plans to WFDMSE.

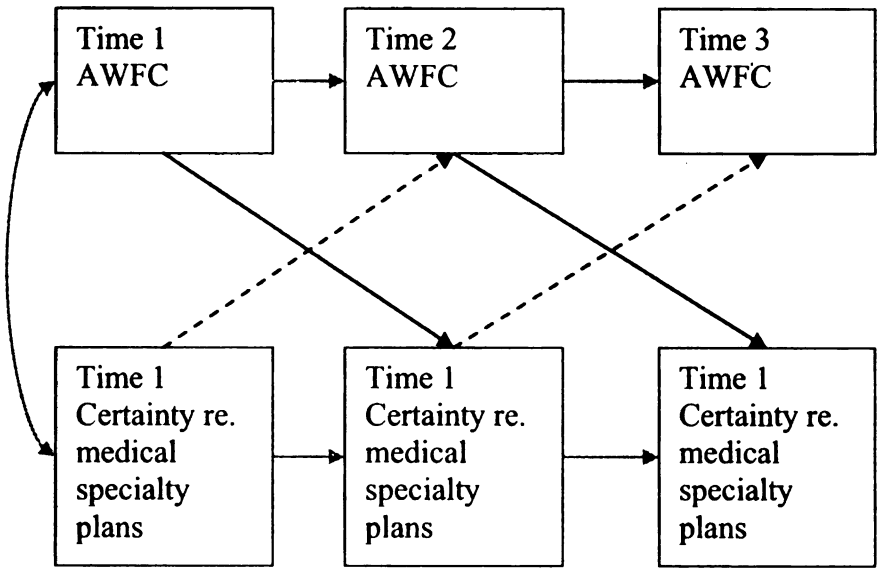

Figure 2. Relationship Between Anticipated Work-family Conflict and Certainty Regarding Medical Specialty Plans.
Note. Separate analyses will be conducted for each of the six types of AWFC.

Friede (2005) also investigated the relationship between certainty regarding family plans and AWFC. Certainty regarding family plans was associated with four of the six types of AWFC (Friede, 2005). Individuals who anticipated less behavior-based FIW, less strain-based conflict (both directions), and less time-based WIF were more certain about their family plans. Again, the causal direction of this relationship could not be determined by the Friede (2005) study, although certainty was conceptualized as an outcome of AWFC. Again, the social cognitive theory of career development supports the notion of certainty as an outcome of AWFC. Therefore, a causal hypothesis is proposed below (see Figure 3). Additionally, hypotheses regarding the relationship between WFDMSE and certainty regarding family plans are presented (see Figure 3).

Hypothesis 29: Over time, individuals who anticipate greater (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW will report less certainty regarding family plans (regardless of condition).

Hypothesis 30: The paths from anticipated (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW to certainty regarding family plans (i.e., the solid black paths in Figure 3) will be stronger than the paths from certainty family plans to anticipated (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW (i.e., the dashed black paths in Figure 3).

Hypothesis 31: Over time, individuals with greater WFDMSE will report greater certainty regarding family plans (regardless of condition).

Hypothesis 32: The paths from WFDMSE to certainty regarding family plans will be stronger than the paths from certainty regarding family plans to WFDMSE .

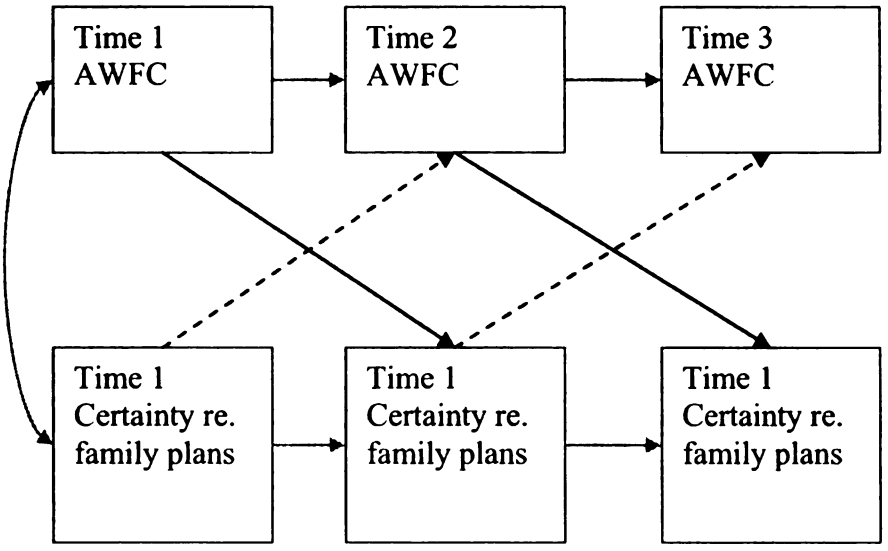

Figure 3. Relationship Between Anticipated Work-family Conflict and Certainty Regarding Family Plans.
Note. Separate analyses will be conducted for each of the six types of AWFC.

Information gathering. In the current study, I examine additional potential outcomes of AWFC. I argue that individuals who anticipate greater levels of work-family conflict will be more motivated to gather information that will help them balance work and family in the future than those who anticipate less work-family conflict, because they are likely to be more concerned about their balance between work and family and less certain about their work and family choices. In the current study, there are several measures of the extent to which individuals seek out information regarding work-family balance for doctors. First, they have the opportunity to self-report how much time they have spent during medical school gathering information about balancing work and family from different sources prior to the intervention. I expect that individuals with greater incoming levels of anticipated work-family conflict also report gathering more information in the past. I have argued that it is the anticipation of work-family

conflict that causes individuals to be motivated to seek out information. However, because this construct is a self-report of past behaviors it does not make sense to examine its relationship to assessments of AWFC at different points in time. Therefore, this hypothesis is only assessed prior to the intervention. This hypothesis is also assessed for WFDMSE.

Hypothesis 33: Individuals with greater anticipated (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW will report gathering more information about balancing work and family during medical school.

Hypothesis 34: Individuals with greater WFDMSE will report gathering less information about balancing work and family during medical school.

Information was also gathered after the intervention that represents a desire to gain additional information about work-family balance. Following the intervention, participants had the opportunity to sign up to receive an electronic newsletter that provides information about how doctors can effectively balance work and family roles. I propose that individuals who have the highest levels of AWFC will be the most likely to desire this additional information. I have argued that the direction of causality in this relationship is that AWFC motivates individuals to seek out information. This causal relationship can be examined in comparison to its converse. Therefore, I propose the following hypotheses (see Figure 4). Furthermore, hypotheses are replicated for WFDMSE in the opposite direction.

Hypothesis 35: Individuals with greater anticipated (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f)

behavior-based FIW will be more likely to request the electronic newsletter (regardless of condition).

Hypothesis 36: The path from anticipated *(a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW to requesting the electronic newsletter (i.e., the solid black path in Figure 4) will be stronger than the path from requesting the electronic newsletter to anticipated (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW (i.e., the dashed black path in Figure 4).*

Hypothesis 37: Individuals with greater WFDMSE will be more likely to request the electronic newsletter (regardless of condition).

Hypothesis 38: The path from WFDMSE to requesting the electronic newsletter will be stronger than the path from requesting the electronic newsletter to WFDMSE.

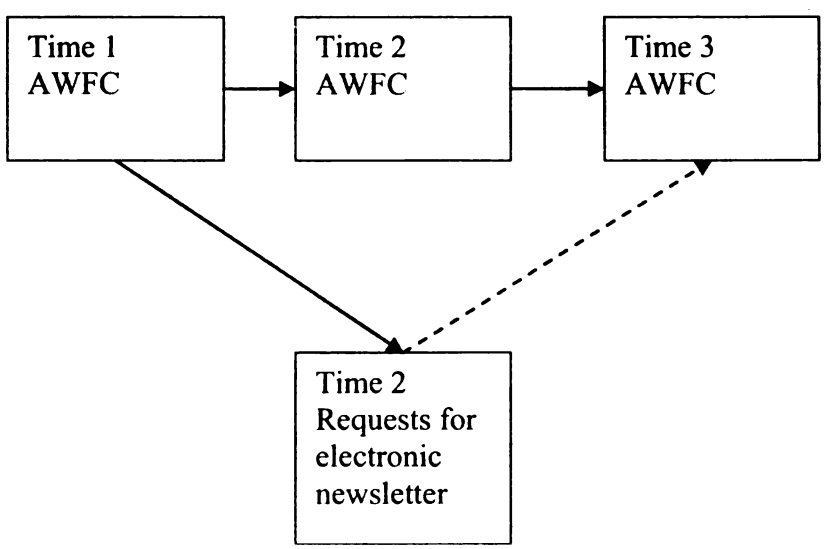

Figure 4. Relationship Between Anticipated Work-family Conflict and Requests for the Electronic Newsletter.
Note. Separate analyses will be conducted for each of the six types of AWFC.

Furthermore, for those participants who receive the electronic newsletter, the newsletter included a link to a website with additional information about work-family balance issues. This represents another form of information-gathering. Given the logic presented previously, the following hypotheses are therefore presented (see Figure 5). The hypotheses are replicated in the opposite direction for WFDMSE.

Hypothesis 39: Individuals with greater anticipated (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW will be more likely to view the website (regardless of condition).

Hypothesis 40: The path from anticipated *(a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW to viewing the website (i.e., the solid black path in Figure 5) will be stronger than the path from viewing the website to anticipated (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW (i.e., the dashed black path in Figure 5).*

Hypothesis 41: Individuals with greater WFDMSE will be less likely to view the website (regardless of condition).

Hypothesis 42: The path from WFDMSE to viewing the website will be stronger than the path from viewing the website to WFDMSE.

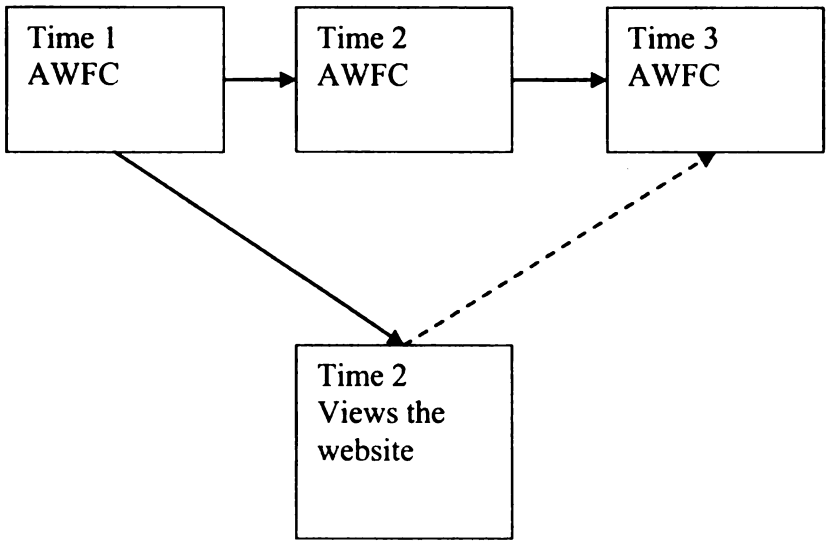

Figure 5. Relationship Between Anticipated Work-family Conflict and Viewing the website.
Note. Separate analyses will be conducted for each of the six types of AWFC.

At Time 3, participants were asked to report how much time they spent gathering information about balancing work and family in the two-week time lag between the two parts of the experiment. Again, individuals who anticipate greater conflict are expected to have spent more time gathering information. Given the fact that this information was collected at Time 3, it is not possible to examine the direction of causality between AWFC and gathering information. One would require a time-lag *after* the assessment at Time 3 to look at the causal relationship. Therefore, the relationship is examined at a single time point (at Time 3). Again, this hypothesis is replicated for WFDMSE.

Hypothesis 43: Individuals with greater anticipated (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW will report spending more time gathering information during the two-week time lag.

Hypothesis 44: Individuals with greater WFDMSE will report spending less time gathering information during the two-week time lag.

Mediational Hypotheses

Finally, the hypotheses presented above all suggest that WFDMSE influences level of AWFC and that level of AWFC influences the outcomes described above. In other words, I argue that AWFC mediates the relationships between WFDMSE and the outcomes of interest. Partial mediation is hypothesized because WFDMSE could also have a direct effect on the outcomes of interest. Therefore, the following hypotheses are proposed. See Figure 6 to see a graphic depiction of the hypotheses for certainty regarding medical specialty plans and certainty regarding family plans (which are all assessed at three points in time). Hypotheses 45 through 50 are depicted in Figure 6 through 10, respectively.

Hypothesis 45: Anticipated (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW partially mediate the relationship between WFDMSE and certainty regarding medical specialty plans (regardless of condition).

Hypothesis 46: Anticipated (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW partially mediate the relationship between WFDMSE and certainty regarding family plans (regardless of condition).

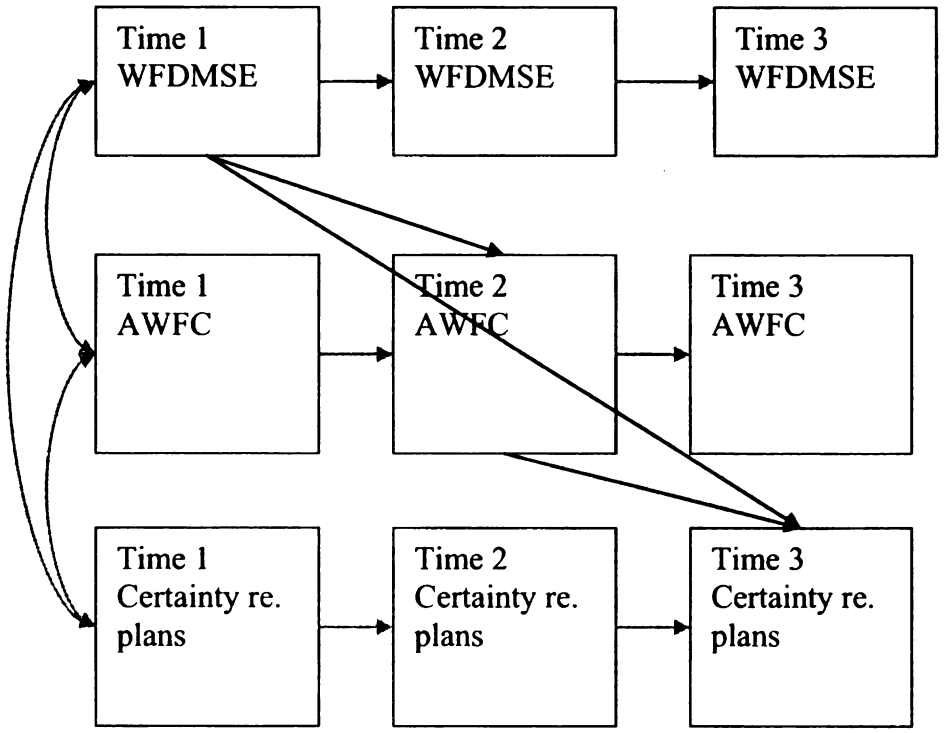

Figure 6. Mediational Relationship Between Work-family Decision-making Self-efficacy, Anticipated Work-family Conflict, and Certainty Regarding Plans.
Note. Separate analyses will be conducted for each of the six types of AWFC and both types of certainty regarding plans (medical specialty and family).

Hypothesis 47: Anticipated (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW partially mediate the relationship between WFDMSE and information-gathering during medical school (regardless of condition).

Hypothesis 48: Anticipated (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW partially mediate the relationship between WFDMSE and requests to receive the electronic newsletter (regardless of condition).

Hypothesis 49: Anticipated (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW partially mediate the relationship between WFDMSE and the likelihood of viewing the website (regardless of condition).

Hypothesis 50: Anticipated (a) time-based WIF, (b) time-based FIW, (c) strain-based WIF, (d) strain-based FIW, (e) behavior-based WIF, and (f) behavior-based FIW partially mediate the relationship between WFDMSE and self-reports of gathering information during the two week time lag (regardless of condition).

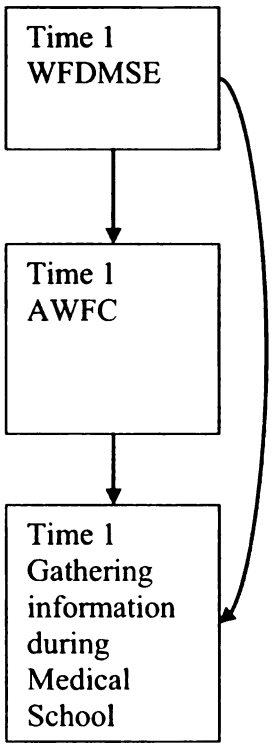

Figure 7. Mediational Relationship Between Work-family Decision-making Self-efficacy, Anticipated Work-family Conflict, and Gathering Information During Medical School.
Note. Separate analyses will be conducted for each of the six types of AWFC.

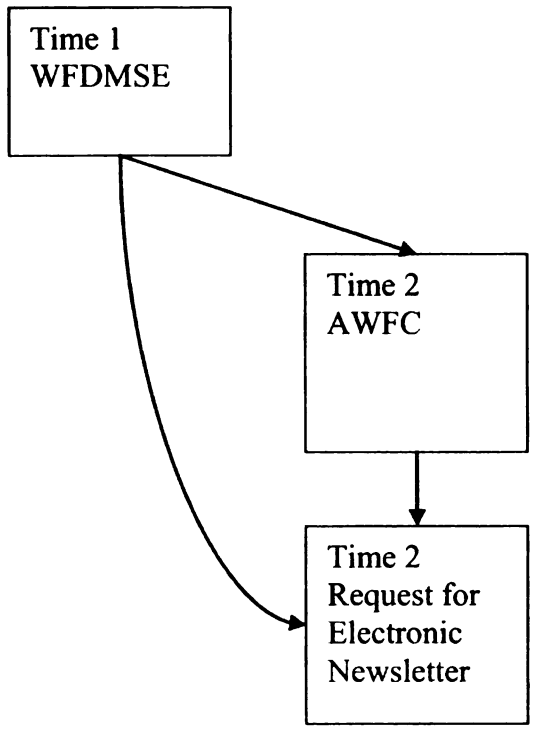

Figure 8. Mediational Relationship Between Work-family Decision-making Self-efficacy, Anticipated Work-family Conflict, and Request for Electronic Newsletter.
Note. Separate analyses will be conducted for each of the six types of AWFC.

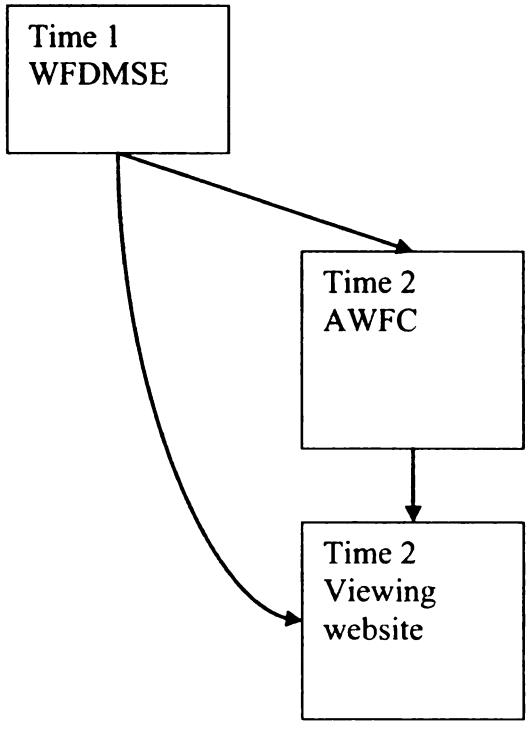

Figure 9. Mediational Relationship Between Work-family Decision-making Self-efficacy, Anticipated Work-family Conflict, and Viewing the Website.
Note. Separate analyses will be conducted for each of the six types of AWFC.

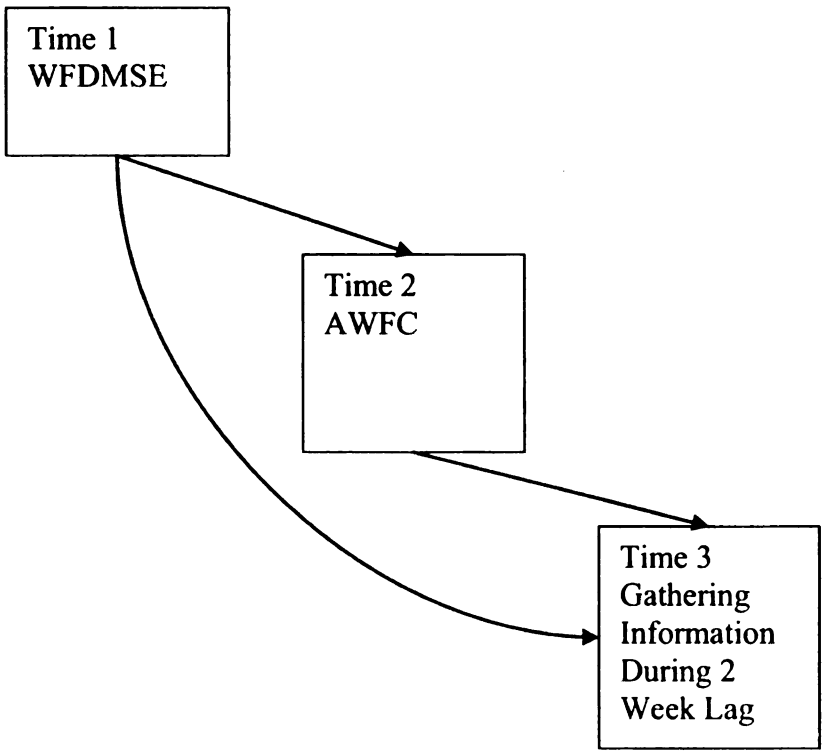

Figure 10. Mediational Relationship Between Work-family Decision-making Self-efficacy, Anticipated Work-family Conflict, and Gathering Information During Two Week Time Lag.
Note. Separate analyses will be conducted for each of the six types of AWFC.

Method

Participants

The sample for this study was comprised of medical students of all years at Michigan State University in the College of Human Medicine (CHM; approximately 480 medical students total) and the College of Osteopathic Medicine (COM; approximately 713 medical students total). Medical students were selected as the target sample for this study because they are required to make concrete career decisions prior to leaving medical school (i.e., which medical specialization to enter). Further, there are a limited

number of discrete specialties available for selection. For these reasons, medical students are a practical sample for examining career decision-making, as opposed to undergraduates or working employees who select jobs and careers from a broader range of options, thus limiting the ability to make comparisons across participant career choices.

The necessary sample size that is needed to reach an acceptable level of power for the study hypotheses was examined. There are three major types of analyses being performed in this study: correlations (including regressions and mediation), ANOVAs, and general linear modeling (i.e., a continuous variable interacting with a categorical variable). Power analyses were conducted to examine the necessary sample size for each of these analyses. In each case, I examined the sample size necessary to detect small and medium effect sizes, as described by Cohen (1969).

To determine the necessary sample size for correlational analyses, I used the following information: alpha for a one-tailed test = .05 (a one-tailed test is used because the correlational hypotheses are directional), power = .80, effect size = .1 (small), .3 (medium; Cohen, 1969). The necessary n to detect a small effect size is 618, while the necessary n to detect a medium effect size is 68 (Cohen, 1969).

To determine the necessary sample size for the analyses involving ANOVAs, I used the following information: alpha = .05, power = .80, u (k -1; where k = the number of groups) = 2, effect size = .1 (small), .25 (medium; Cohen, 1969). The necessary n to detect a small effect size is 322, while the necessary n to detect a medium effect size for these analyses is 52 (Cohen, 1969).

Finally, to determine the necessary sample size for the GLM analysis (in which a continuous variable interacts with a categorical variable), the power analysis for differences among correlations can be used as a proxy (N. Schmitt, personal communication, November 2, 2006). In this case, I used the following information: alpha for a one-tailed test = .05 (a one-tailed test is used because the hypotheses are directional), power = .80, effect size = .1 (small), .3 (medium; Cohen, 1969). The necessary n to detect a small effect size is 1,240, while the necessary n to detect a medium sample size is 140 (Cohen, 1969).

The final sample for the current study is 108 participants. Therefore, medium effect sizes should be detectable in the analyses using ANOVAs and correlations. A medium-effect size using GLM will not be detectable given the current sample.

Design and Procedure

A link to a web-based questionnaire was sent via email to all medical students from Deans of their respective medical schools. The email described the nature of the study and explained how students could participate (see Appendix A). Participation in the survey was voluntary and confidentiality of responses was assured to the participants. Individuals who participated in Time 1 (pre-test immediately preceding the intervention) and Time 2 (post-test immediately following the intervention) data collections received a $5 check in the mail. Individuals who participated in the 2 week follow-up (Time 3) received an additional $5 (i.e., they received a $10 check in the mail).

The web-survey automatically randomly assigned participants to one of two conditions. At Time 1, participants completed pre-intervention survey items, participated in an intervention (Work-family or Career; the interventions are described later), and then

completed the post-intervention survey items (Time 2). Note that there ideally would have been a greater time lag between the administration of the pre-intervention survey and the administration of the post-intervention survey (e.g., to reduce memory effects). However, due to concerns regarding participant attrition, the Time 1 items were completed immediately prior to the intervention, while the Time 2 items were completed immediately after the intervention. See Appendices B and C for the consent forms that were completed Time 1 and Time 3.

For those individuals who chose to participate in the study and provided consent to be re-contacted, a follow-up email was sent to them two weeks after their initial participation asking them to visit the website again to participate in Time 3 of the study (see Appendix D). 91 out of the 108 original participants completed Time 3 of the study (84.3%). Each individual had a two week window in which to participate in Time 3 of the study. Participants who completed Time 3 read a debriefing letter at the end of the survey (see Appendix E). Those who did not participate in the Time 3 received the debriefing letter via email after the window had closed on participation for all participants. It was not possible to provide a full debriefing at the end of the initial survey completion so that study hypotheses were not revealed prior to the end of the experiment.

After completing the Time 2 survey, participants were asked if they would like to receive an electronic newsletter about the work-family challenges facing medical students. 55.6% of participants agreed to receive the newsletter. There was no difference across conditions in the likelihood that students consented to receive the newsletter ($F = .59, p = .44$).

Participants who consented to receive the electronic newsletter, received an email the day that they completed the survey (see Appendix F). The email provided a link to a website about the work-family challenges facing medical students. The website tracked which students visited the site based on their ID number. 20.4% of all participants visited the website. Of those who consented to receive the email, 36.7% visited the website. There was no difference across conditions in the likelihood that students visited the website (among those who received the newsletter ($F = .15, p = .70$)).

Experimental Conditions

Only the interventions differed across experimental conditions. Time 3 of the study was the same regardless of experimental condition.

In the Career condition, participants were asked to complete the pre-intervention survey items (Time 1), engage in the Career experimental intervention, and then immediately complete the post-intervention survey items (Time 2). The design for this condition was based on two critical features. First, Crites (1961) identified five components of career decision self-efficacy: confidence in self-appraisal, gathering information, goal selection, planning, and problem-solving. The current study focuses on the first three of those components: self-appraisal, gathering information, and goal selection. Additionally, Bandura and Adams (1977) suggested that self-efficacy can be enhanced in four distinct ways: performance accomplishments, observational learning, emotional arousal, and verbal persuasion. Betz (1992) discussed the relevance of applying these four methods to the enhancement of CDSE. Performance accomplishments refer to providing opportunities for individuals to undertake the task that they lack self-efficacy for (Bandura & Adams, 1977; Betz, 1992). According to

Bandura and Adams (1977), it is important that these performance accomplishments result in success for the participant, thus increasing their confidence (see also Betz, 1992). Observational learning refers to learning from role models, who demonstrate success in the area in which the individual lacks confidence (Bandura and Adams, 1977, Betz, 1992). Emotional arousal refers to the importance of calming the anxiety of individuals with regard to the area in which he/she lacks self-efficacy. Relaxation techniques, adaptive self-talk, and thought stopping are examples of mechanisms that are expected to increase self-efficacy through emotional arousal (Bandura & Adams, 1977, Betz, 1992). Finally, verbal persuasion refers to the encouragement, support, and positive reinforcement provided to improve self-efficacy (Bandura & Adams, 1977, Betz, 1992). Note that emotional arousal was not included in the current intervention because of the time necessary to effectively teach and implement relaxation techniques.

Appendix G provides the powerpoint slides utilized in the Career condition along with a transcript of the automated recorded audio lecture that accompanied each slide. There were three sets of powerpoint slides included (called tutorials; i.e., self-appraisal, information-gathering, and goal selection). After viewing each set of powerpoint slides, participants completed a brief task before moving onto the next set of slides (Appendix G also includes the tasks that followed each Tutorial). In the Career condition, the average time to complete Time 1 and Time 2 surveys (including participating in the intervention) of the study for the final sample was 53.13 minutes (sd = 24.99 minutes).

In the Work-family condition (see Appendix H for intervention materials), participants were asked to complete the pre-intervention survey items (Time 1), engage in the Work-Family experimental intervention, and then immediately complete the post-

intervention survey items (Time 2). Note that the work-family intervention was designed to be parallel to the Career condition in all ways except the content was altered from a focus on career choices broadly to a focus on work-family issues in career choices. In the Work-family condition, the average time to complete Time 1 and Time 2 surveys (including participating in the intervention) for the final sample was 50.54 minutes (*sd* = 30.0 minutes).

Although participants were randomly assigned to condition, I nonetheless examined whether the participants differed by condition across any of the key demographic variables. There were no differences between condition in gender ($F = 1.54$, $p = .22$), school ($F = 0.04$, $p = .85$), age ($F = 0.01$, $p = .93$), marital status (currently married or not; $F = .08$, $p = .78$), relationship status (i.e., whether in a committed relationship or not; $F = 0.62$, $p = .44$), or parental status (parent or not; $F = .97$, $p = .33$). Percentage of White participants varied across conditions. The Career condition was 88.9% White, whereas the Work-Family condition was 72.2% White ($F = 4.92$, $p = .03$). This difference is likely due to chance and it is therefore not considered further unless specified.

Data Cleaning

A number of steps were taken to clean the data prior to analyses. First, I examined whether any participants names appeared in both conditions. Because the survey was web-based, students sometimes accessed the survey, looked it over, and exited without completing the survey. Then, they revisited the website later to actually complete the survey. In these cases, their names appeared in both conditions. By reviewing whether they filled out the survey and how long they took to do so, it is

apparent which survey they intended to complete fully. Seven participants were deleted from one condition for this reason and their data was kept in the other condition. One participant was deleted from both conditions in which her name appeared because surveys were not completed in either condition.

Next, I examined the data for participants whose times to complete Time 1 and Time 2 surveys (including participating in the intervention) of the survey were more than one standard deviation below the mean completion time in their respective condition (Work-family or Career). The mean completion time for the Career condition for all participants was 45.33 minutes (sd = 29.36). Ten participants had completion times more than one standard deviation below the mean in the Career condition. Upon further examination of the responses of these participants, all participants showed large quantities of missing data and they were therefore not included in the final data set. The same procedure was followed for the Work-family condition. The mean time to complete Time 1 and Time 2 surveys (including participating in the intervention) of the Work-Family condition for all participants was 42.69 minutes (sd = 10.79). Nine participants in this condition completed these surveys more than one standard deviation below the mean. Again, an examination of their data showed large quantities of missing data and they were not included in the final data set.

At this point, the data set consisted of 114 participants. The next step was to examine the responses of remaining participants with large quantities of missing data. Seven participants were identified as missing considerable amounts of data. Of those seven, four terminated participation prior to the experimental intervention. Therefore, their data was deleted. The remaining three participants terminated participation after the

experimental intervention. Therefore, I was able to examine their responses to the tasks associated with the experimental interventions to determine whether they appeared to be taking the study seriously. All three participants completed those tasks seriously. Therefore their data was retained (two participants from the Career condition and one from the Work-family condition).

Next, I examined the data from Time 3 of the study. I examined the data of participants who completed Time 3 in an amount of time more than one standard deviation below the mean for each condition (Note that all participants completed the same survey in Time 3 regardless of condition). The mean completion time for participants in the Career condition was 10.23 minutes ($sd = 5.77$). Four participants completed the survey more than one standard deviation below the mean. An examination of their data showed that they appeared to have taken the survey seriously and thus their data was retained. In the Work-family condition, the mean time for completion was calculated by excluding the data of two participants whose time to complete the survey was exceptionally long (most likely they left the survey open on their computers and returned to complete it at a later time). Excluding these two values, the mean time to complete Time 3 in the Work-family condition was 8.00 minutes ($sd = 3.12$). Five participants had completion times more than one standard deviation below the mean. Again, an examination of their data showed that they appeared to take the survey seriously and therefore their data was retained.

The next step was to see if there were any other participants with large quantities of missing data in Time 3 of the study. One participant was identified who did not

complete the vast majority of the Time 3 survey and this participant's Time 3 data was deleted.

Finally, I examined whether there were any individuals whose data was kept for Time 3 but deleted from the data collected for Time 1 and Time 2. This was the case for one participant and that participant was therefore excluded from the study. The final data set consisted of 108 participants in Time 1 and Time 2 and 91 participants in Time 3. Table 2 shows demographic information for the final sample.

Table 2
Demographic Information by Medical School

	COM	CHM	Total
Final number of participants in Time 1 and 2	55	53	108
Final number of participants in Time 3	47	44	91
Work-family condition	49.1	50.9	50.0
1st year participants	50.9	30.2	40.7
2nd year participants	32.7	32.1	32.4
3rd year participants	16.4	22.6	19.4
4th year participants	0	15.1	0
Age: 22 or younger	0	0	0
Age: 23 – 24	56.4	39.6	48.1
Age: 25 – 26	27.3	30.2	28.7
Age: 27 – 28	9.1	15.1	12.0
Age: 29 or older	7.3	15.1	11.1
Female	70.9	66.0	68.5
Currently married	18.2	32.1	25.0
In a relationship	65.5	56.6	61.1
Having one or more children that live with them	7.3	13.2	10.3
African-American, Black	3.6	3.8	3.7
Asian	7.3	3.8	5.6
Hispanic	0	1.9	.9
Caucasian, White	93.6	77.9	80.6

Notes. Numbers in table are percentages except for Final number of participants in Time 1 and 2 and Time 3. COM = College of Osteopathic Medicine. CHM = College of Human Medicine.

Measures

Anticipated Work-Family Conflict. Friede (2005) adapted the 18-item work-family conflict scale created by Carlson et al. (2000) to reflect the measurement of "anticipated" conflict. All items were rewritten in a future tense. Six types of anticipated work-family conflict were measured including anticipated behavior-based work-interference-with-family (*behavior-based WIF*), anticipated behavior-based family-interference-with-work (*behavior-based FIW*), anticipated strain-based work-

interference-with-family (*strain-based WIF*), anticipated strain-based family-interference-with-work (*strain-based FIW*), anticipated time-based work-interference-with-family (*time-based WIF*) and anticipated time-based family-interference-with-work (*time-based FIW*). The measure consists of 18 items ranging from 1 (strongly disagree) to 5 (strongly agree). The measure was administered at three points during the study: Time 1, Time 2, and Time 3. See Appendix I for the anticipated work-family conflict items.

Carlson et al. (2000) found that a structural equation model with six correlated latent factors fit their data measuring actual work-family conflict best. Friede (2005) conducted a confirmatory factor analysis to examine whether a six factor structure fit the measure of anticipated work-family conflict, as well A six factor model was compared to a three factor model (which reflected anticipated time-, strain-, and behavior-based conflict – ignoring direction of conflict), a two factor model (anticipated work-interference with family and family-interference-with-work – ignoring type of conflict), and a unidimensional model (all anticipated work-family conflict items). Factors were allowed to correlate. Friede (2005) found the six factor model to have the best fit.

In the current study, the factor structure at each time point was examined (see Appendix J for item intercorrelations). Confirmatory factor analyses were conducted to examine whether the data collected from this study also fall into this six-dimensional factor structure in each administration. A six factor model was compared to a three factor model, a two factor model, and a one factor model at each time point. Factors were allowed to correlate (in the six factor model, factors were only allowed to correlate with factors that reflected the same type and direction of anticipated conflict – the sample size was not large enough to support correlations among all latent variables). The models

were not nested; therefore chi-square difference tests are not appropriate. Nonetheless, a comparison of the fit indices indicate that at all three time points, the six dimensional model had the best fit (see Appendix K). This replicates the findings of Friede (1995) for the "anticipated" version of the measure. Six dimensional scales are therefore used at each time point. Scale reliabilities are presented in Table 3.

Table 3
Reliabilities for Anticipated Work-family Conflict Scales

	Time 1	Time 2	Time 3
Time-based WIF	.77	.86	.86
Time-based FIW	.73	.80	.87
Strain-based WIF	.82	.89	.89
Strain-based FIW	.93	.92	.94
Behavior-based WIF	.79	.85	.80
Behavior-based FIW	.93	.92	.88

Notes. WIF = Work-interference-with-family. FIW = Family-interference-with-work.

Certainty regarding medical specialty plans. Each participant was asked to report what medical specialty they felt that they were most likely to enter (given 25 options; see Appendix L) in Time 1. Frequencies are provided for descriptive purposes (see Table 4).

Table 4

Descriptive Statistics for Medical Specialty Plans

Specialty	COM	CHM	Career	Work-Family	Total
Number of participants	46	46	48	44	92
Anesthesiology	0	2.2	0	2.3	1.1
Dermatology	0	0	0	0	0
Emergency medicine	10.9	21.7	14.6	18.2	16.3
Family practice	13.0	10.9	10.4	13.6	12.0
Internal medicine	10.9	0	4.2	9.1	6.5
Medical genetics	0	0	0	0	0
Neurological surgery	0	2.2	2.1	0	1.1
Neurology	6.5	0	2.1	4.5	3.3
Nuclear medicine	0	0	0	0	0
Obstetrics and gynecology	13.0	10.9	16.7	6.8	12.0
Ophthalmology	0	0	0	0	0
Orthopedic surgery	0	2.2	2.1	0	1.1
Otolaryngology	2.2	0	2.1	0	1.1
Pathology	0	0	0	0	0
Pediatrics	8.7	8.7	8.3	9.1	8.7
Physical medicine and rehabilitation	6.5	0	0	6.8	3.3
Plastic surgery	2.2	0	2.1	0	1.1
Psychiatry	2.2	4.3	4.2	2.3	3.3
Radiation oncology	0	2.2	2.1	0	1.1
Radiology – diagnostic	6.5	8.7	10.4	4.5	7.6
Surgery – general	4.3	4.3	6.3	2.3	4.3
Urology	0	2.2	0	2.3	1.1
Other	10.9	10.9	12.5	9.1	10.9
Unsure	2.2	6.5	0	9.1	4.3

Notes. All values are presented as percentages except the number of participants. COM = College of Osteopathic Medicine. CHM = College of Human Medicine. Career = Career condition. Work-family = Work-family condition.

Three items assessed certainty regarding medical specialty (see Appendix L). These items were assessed in Time 1, Time 2, and in Time 3. The second and third items were recoded so that higher scores represent greater certainty.

A principal axis factor analysis using a varimax rotation was conducted for each administration of the measure to examine whether the three items can be combined into a

single scale (see Appendix M for item intercorrelations). For all three administrations of the measure, a single factor was extracted. Therefore, an overall scale score representing certainty about medical specialty was created for each administration. The reliability of the measure in Time 1 was $\alpha = .91$. The reliability of the measure in Time 2 was $\alpha = .88$. The reliability of the measure in Time 3 was $\alpha = .88$.

Certainty regarding family plans. Participants answered five questions about their plans for their future family lives (see Appendix N) in Time 1. Frequencies are provided for descriptive purposes (see Table 5). Participants also answered three questions regarding their certainty about their family plans at Time 1, Time 2, and Time 3 (see Appendix N). The second and third items were recoded so that higher scores indicate greater certainty.

Table 5
Descriptive Statistics for Family Plans

	COM	CHM	Career	Work-Family	Total
% that plan to marry	98.2	86.8	96.3	88.9	92.6
% that plan to marry before age 30	52.7	30.2	42.6	40.8	41.7
% that plan to have children	87.3	81.1	90.7	77.8	84.3
% that plan to have 2 or 3 children	63.6	62.3	72.2	53.7	63.0
% that plan to have children before age 30	34.5	9.4	24.1	20.4	22.2

Notes. COM = College of Osteopathic Medicine. CHM = College of Human Medicine. Career = Career condition. Work-family = Work-family condition.

A principal axis factor analysis using varimax rotation was conducted for each administration of the measure to examine whether the three items can be combined into a single scale (see Appendix O for item intercorrelations). For all three administrations of the measure, a single factor was extracted. Therefore, an overall scale score representing certainty about family plans was created for each administration. The reliability of the

measure in Time 1 was $\alpha = .85$. The reliability of the measure at Time 2 was $\alpha = .86$. The reliability of the measure at Time 3 was $\alpha = .89$.

Career decision self-efficacy scale. The Betz et al. (1996) measure of CDSE was adapted to reflect the choice of medical specialization (as opposed to choice of major and career in the original measure). The measure has five facets based upon Crites' (1961) five Career Choice Competencies (Betz et al., 1996). They are: 1) accurate self-appraisal; 2) gathering occupational information; 3) goal selection; 4) making plans for the future; and 5) problem solving. Betz and colleagues offer two forms of the scale: the long form (50 items, 10-point response scale) and the short form (25 items, 5-point response scale). The short form of the measure has been shown to have equivalent reliability and validity to the original measure (Betz et al., 1996). Items are rated on a 5-point scale ranging from 1 (no confidence at all) to 5 (complete confidence). According to Betz et al. (1996), subscale scores (the mean of the five items that reflect each facet) can be used and an overall mean (across all 25 items) can also be used. Two unpublished doctoral dissertations (Paulsen, 2001 and Smith, 2001; from Taylor & Betz, 2006) found each of the overall measures and each five subscales to have reliabilities over $\alpha = .80$ in samples of 603 and 423 students, respectively. Prior research has shown the effectiveness of this measure as a tool for evaluating the effectiveness of interventions (pre- and post-intervention measures; Bergeron & Romano, 1994; Betz, 1992; Betz & Luzzo, 1996; McAuliffe, 1991; Peterson, 1993).

In the current study, I adapted items from the shorter form of this measure. Due to the fact that only three of the five facets were included in the intervention (self-appraisal, gathering information, and goal selection), only the five items representing

each of those facets were included (15 items total). For the current study, I adapted the measure to reflect the career decision-making of medical students focusing on their choice of medical specialization (see Appendix P). Items were rated on a 5-point scale ranging from 1 (no confidence at all) to 5 (complete confidence). The measure was administered at Time 1, Time 2, and Time 3.

As mentioned above, Betz et al. (1996) reported that the overall scale measure could be used as a general measure of career decision-making self-efficacy. See Appendix Q for item intercorrelations and Appendix R for the results of the CFA. CFAs were conducted for the measure at each time point. At each time point, CDSE items from the three assessed facets (self-appraisal, gathering information, and goal selection) each were loaded on to their respective latent factors. A higher order latent factor representing overall CDSE was also included in the model. Error terms within a facet were correlated based on modification indices (this accounts for the differing degrees of freedom across time periods). At Time 1 and Time 3, the error variance of the goal selection latent variable was fixed to .05 because the solution was not admissible without this adjustment (i.e., it was a Heywood case). At all three time points, each of the three latent factors significantly loaded onto the second-order latent factor representing career decision-making self-efficacy. Also, the fit of the model is good at all time points. These findings support the notion that there is some higher-order career decision self-efficacy construct that is measured across all three of the facets. Therefore, I will use a measure of overall CDSE (mean of all items) as opposed to the subscales. The reliability for the Time 1 overall scale was $\alpha = .91$. The reliability for the Time 2 overall scale was $\alpha = .93$.

The reliability for the Time 3 overall scale was $\alpha = .91$. Note that in all cases, these reliabilities are equal to or higher than the reliabilities of the 5-item facet scales.

Work-family decision-making self-efficacy. This measure was adapted from the final version of the CDSE scale used in the current study (described above). Items were re-written to focus on career decision-making with specific regard to work-family issues. Similar to the career decisions self-efficacy scale described above, only the competencies of self-appraisal, gathering information, and goal selection were measured for work-family decision-making self-efficacy. This measure consists of 15 items rated on a 5-point scale from 1 (no confidence at all) to 5 (complete confidence). Items are presented in Appendix S.

Given that this measure is an adaptation of the CDSE scale described above, the same analyses were conducted to examine the factor structure of this measure at each of the three time points. At each time point, a CFA was conducted in which the work-family decision-making self-efficacy items from the three assessed facets (self-appraisal, gathering information, and goal selection) each were loaded on to their respective latent factors. A higher order latent factor representing overall work-family decision-making self-efficacy was also included in the model. Error terms within a facet were correlated based on modification indices (this accounts for the differing degrees of freedom across time periods). Each of the three latent facets significantly loaded onto the second-order latent factor. See Appendix T for item intercorrelations and Appendix U for the results of the CFA. The fit of the model is also good, thus supporting the idea that there is an overarching WFDMSE construct that is indicated by the three facets. The reliability for the Time 1 overall scale was $\alpha = .95$. The reliability for the Time 2 overall scale was $\alpha =$

.96. The reliability for the Time 3 overall scale is $\alpha = .94$. Again, these reliabilities are equal to or greater than the reliabilities of any of the 5-item facet scales. I will use a measure of overall WFDMSE (mean of all items) as opposed to the subscales for the current study.

Role-planning knowledge. Friede (2005) measured role-planning knowledge. This was taken from the "knowledge/certainty" subscale of the Attitudes Towards Multiple Role Planning scale created by Weitzman and Fitzgerald (1996). This scale measures beliefs about the extent to which one is knowledgeable about how to plan for multiple roles and confidence in the ability to do so (Weitzman & Fitzgerald, 1996). Friede (2005) found role-planning knowledge to be a significant predictor of all forms of anticipated work-family conflict. Friede (2005) found this measure to be unidimensional with a reliability of $\alpha = .90$. The same measure was used in the current study. The measure is 10 items and responses are indicated on a 5-point scale from 1 (strongly disagree) to 5 (strongly agree). This measure is administered in Time 1, Time 2, and Time 3 (see Appendix V for items)

A principal axis factor analysis with a varimax rotation was conducted to assess the factor structure of the Time 1 items (see Appendix W for item intercorrelations and Appendix X for results of the factor analysis). Two factors were extracted. All items had their highest loading on the first factor except for Items 7 and 9. The first factor explains more than five times the variance of the second factor. The reliability for the overall scale was $\alpha = .90$. The reliability of the scale with items 7 and 9 removed was examined. The deletion of these items did not improve the overall scale reliability. All items were retained for the creation of a single measure of Time 1 role-planning knowledge.

The same steps were followed to examine the item characteristics in the Time 2 administration of the measure (see Appendix W for item intercorrelations and Appendix X for results of the factor analysis). Again, the results of a principal axis factor analysis with a varimax rotation showed that two factors were extracted. This time, items 5, 8, and 10 had their highest loadings on the second factor. The reliability of the overall scale with all ten items included is $\alpha = .89$. An examination of the three items that loaded on the second factor showed that the removal of these items did not improve the reliability of the overall scale. Therefore, all items were retained in the overall scale.

The same steps were followed to examine the item characteristics in the Time 3 administration of the measure (see Appendix W for item intercorrelations and Appendix X for results of the factor analysis). A principal axis factor analysis with a varimax rotation extracted one factor. The reliability of the overall scale with all ten items included is $\alpha = .91$.

Gender. Participants were asked to report their gender (male, female) in Time 1 and it was coded male = 0, female = 1 (see Appendix Y). This was assessed prior to the intervention. The overall sample was 68.5% female at the start of the assessment. In Time 3 of the study, the sample was 68.1% female (see also Table 1). There was no differential attrition from the study based on gender ($F = .04$, $p = .84$).

Age. Participants were asked to select their age on a 5-option scale ranging from 1 (22 or younger) to 5 (29 or older; in Time 1; see Appendix Y). This was treated as a continuous variable. See Table 1 for the percentage of participants falling into each age range. There was no differential attrition from the study based on age in a comparison of

those under 25 with those over 25 (approximately half the sample was under 25 and the other half was 25 or older; F = .00, p = .97).

Marital status. Participants were asked to report their current marital status given the following five options (never married, currently married, divorced or separated, widowed, long-term live-in relationships in Time 1; see Appendix Y). 74.1% of the participants were never married, 25.0% were currently married, and .9% were divorced or separated (see also Table 1). No participants reported being widowed or in a long-term live-in relationship. This was assessed in Time 1. For analytical purposes, I coded this variable 1 = currently married, 0 = all other options). There was no differential attrition from the study based on marital status (F = 1.88, p = .17).

Additional personal characteristics. Additional personal characteristics were assessed in Time 1 for the purposes of describing the sample. These are: year in medical school (treated as a continuous variable), parental status (coded 0 = do not have a child living with me, 1 = have a child living with me) ethnicity (0 = all other ethnicities, 1 = White), and age of youngest child (this variable was not utilized because it correlated r = .89 with parental status). See Appendix Y for items and Table 1 for a description of the sample along these characteristics..

Core self-evaluations. Core self-evaluations was measured in Time 1 using the Core Self-Evaluations Scale (CSES) developed by Judge, Erez, Bono, and Thoresen (2003). The CSES is a unidimensional 12-item measure representing four more specific core traits (generalized self-esteem, self-efficacy, neuroticism, and locus of control). Responses are rated on a scale of 1 (strongly disagree) to 5 (strongly agree; see Appendix Z).

I conducted a confirmatory factor analysis to examine whether the current measure of core self-evaluations measure can be treated as unidimensional, similar to existing measures (Judge et al., 2003). Item intercorrelations are presented in Appendix AA. I conducted a CFA with all twelve core self-evaluations items loading onto a single latent factor (to represent the common construct of core self-evaluations which are hypothesized to underlie all items). I correlated item uniquenesses based upon modification indices. The results of the CFA indicate that model fit is good and that all items load significantly onto the latent factor, thus supporting the use of a single measure of CSE (see Appendix BB). The reliability for the overall measure is $\alpha = .86$.

Role-importance. For the current study, I adapted a measure of role-importance from Amatea, Cross, Clark, and Bobby (1986). Their original Life Role Salience Scale (LRSS) was used by Kerpelman and Schvaneveldt (1999) and is one of the more prominent measures of role-importance. Their original scale addresses four major life roles – the occupation, the marital, the parental, and the homecare roles. However, in the current study, we are focusing on two major life roles (work and family). Family can be considered a combination of the marital and parental roles. Therefore, the items were adapted to reflect those two life roles. Furthermore, item content was refined so that items were parallel across the two life roles.

Response-options were on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). The measure was assessed in Time 1 intervention (see Appendix CC for items). Appendix DD presents the intercorrelations among the items and Appendix EE presents the results of the principal axis factor analysis with a varimax rotation. The

results of the factor analysis showed that all of the family items sorted onto one factor while the work items sorted onto three different factors. I examined the items in the work importance scale and it appears that the three factors reflect differences in item wording rather than distinct constructs. Therefore, I conducted a second principal axis factor analysis with a varimax rotation and forced two factors. The results of this show that the work and family items do sort onto two separate factors (see Appendix EE). The scale for the work items does have a slightly lower reliability than desired ($\alpha = .68$). There was no item whose removal from the scale would improve the reliability. Therefore, the original items are all retained in the final work role-importance scale. The reliability of the family role-importance scale was $\alpha = .79$. However, the family role importance scale is negatively skewed, indicating that the majority of participants rated family role importance extremely highly (mean = 4.37, s.d. = .68, skewness statistic = -1.34).

Work-family information gathering. At the end of Time 1, I assessed the frequency with which participants gathered information on balancing their medical careers with their family life since entering medical school (called work-family information gathering Time 2; see items in Appendix FF). A principal axis factor analysis with a varimax rotation was conducted with the five items and one factor was extracted (see Appendix GG for item intercorrelations). The reliability of the five items is $\alpha = .83$. Therefore, a scale was created to represent overall work-family information gathering behaviors at Time 2 (with higher scores reflecting greater information-gathering). There were no significant differences across condition in responses to these items.

In Time 3 (two weeks following the intervention), I asked a second set of work-family information gathering questions (called work-family information gathering Time 3; see Appendix HH for items). These questions assessed whether the participants received and read the email newsletter and visited the website since Time 2. Additionally, they were asked the same five questions as asked at Time 2 about information-gathering, except that these focused on the behaviors that were exhibited in the past two weeks (i.e., between Time 2 and Time 3). 60 participants agreed to receive an email newsletter about work-family balance issues facing medical students. However, only 47 participants reported receiving the email. Of those 47, 42 participants reported reading some or all of the email newsletter. 22 participants visited the website during the two-weeks in between Time 2 and Time 3 (these 22 participants also self-reported visiting the website). Participants self-reported spending on average between 5 – 10 minutes on the website.

A principal axis factor analysis with a varimax rotation was conducted on the five information-gathering items that match the five items assessed in Time 2. The factor analysis extracted two factors (see Appendix II for item intercorrelations and Appendix JJ for the results of the factor analysis). After reviewing the results of the factor analysis and examining the inter-item correlations, it appears that Item 9 (time spent using other resources) is problematic. Additionally, the reliability of the measure is $\alpha = .73$ with Item 9 and $\alpha = .74$ without Item 9. A second factor analysis was conducted omitting Item 9 and a one factor solution was extracted. Therefore, the decision was made to create an overall scale only using Items 5, 6, 7, and 8.

Differentiation among self-efficacy scales. There are several scales included in this study that tap (either directly or indirectly) perceptions of self-efficacy. First, the core self-evaluations scale includes a generalized self-efficacy subscale (Judge et al., 2003). Both the career decision self-efficacy scale and the work-family decision-making self-efficacy scale are designed to tap self-efficacy towards specific types of decision-making. Note that generalized self-efficacy (a general feeling that one is capable of effectively accomplishing goals) is likely to influence more specific types of self-efficacy. Further, work-family role-planning knowledge may also have a self-efficacy component because a self-efficacy towards making decisions about work and family may influence perceptions of knowledge. Therefore, it is important to examine whether these four constructs should be treated as distinct in the analyses that follow.

All items from the core self-evaluations, CDSE, WFDMSE, and role-planning knowledge scales (Time 1) were entered into a principal axis factor analysis with a varimax rotation. This factor analysis failed to converge due to the high number of items relative to the sample size. Therefore, I conducted a factor analysis with only the CDSE, WFDMSE, and role-planning items. Eight factors were extracted (see Appendix KK for factor loadings). The results of this factor analysis show that the items from separate scales do not cross-load onto the same factors. CDSE items loaded onto factors 3, 5, and 7. WFDMSE items loaded onto factors 2, 4, and 6. Role-planning knowledge items loaded onto factor 1. No items had high loadings on the 8th factor. This suggests that the WFDMSE, CDSE, and role-planning knowledge scales are distinct and can be differentiated from one another despite high correlations amongst the scales. In other

words, even though the items do share a common self-efficacy factor, there is still a meaningful distinction between the scales.

Additionally, I conducted a principal axis factor analysis with a varimax rotation with the WFDMSE, CDSE, and core self-evaluations items (see Appendix KK). In this case, nine factors with eigen-values greater than 1.0 were extracted. No items had their highest factor loading on the 9th factor. The CDSE items loaded onto factors 1, 7, and 8. The WFDMSE items loaded into factors 2, 3, and 5. The CSE items loaded onto factors 4 and 6. Again, this suggests that the three scales can be differentiated from one another, despite high correlations amongst the scales. Based on these findings, it is appropriate to treat these four scales as distinct, while recognizing that a common self-efficacy factor may play a role in influencing responses to all items.

Manipulation check. Participants were given a manipulation check at the beginning of Time 2 (immediately after the intervention) to see if they were able to discern what content was included in the intervention that they watched (Career or Work-family). Manipulation check items can be found in Appendix KK. Each of the six items was rated on a scale of 1 (definitely not included) to 5 (definitely included). The items represented content covered in the two conditions on each of the three major topics (self-appraisal, gathering information, goal selection). Note that the Career items could also be seen as having been covered in the Work-family condition, whereas the reverse is not true. On items 1, 3, and 5, it was expected that there would either be no difference between conditions or the participants in the Career condition would endorse this item more strongly (i.e., be more certain that the content was included). On items 2, 4, and 6, it was expected that the participants in the Work-family condition would endorse this

item more strongly (i.e., be more certain that the content was included). Table 6 shows the mean ratings provided by each group. Results indicate that the differences across the two conditions were, in fact, detected by the participants. As expected, the Career group was significantly higher than (or equal to) the Work-family group on items 1, 3, and 5. The Work-family group was significantly higher than the Career group on items 2, 4, and 6.

Table 6
Results of manipulation check

	Career Mean (*sd*)	Work-family Mean (*sd*)	ANOVA (F, *p*)
Item 1, C SA	4.56 (0.79)	4.13 (0.89)	6.88, .01
Item 2, WF SA	3.00 (1.30)	4.33 (0.80)	41.03, .00
Item 3, C GI	4.80 (0.53)	4.33 (0.80)	12.58, .00
Item 4, WF GI	3.51 (1.25)	4.56 (0.69)	28.84, .00
Item 5, C GS	4.46 (1.86)	4.36 (0.86)	0.40, .53
Item 6, WF GS	3.59 (1.27)	4.24 (0.97)	8.91, .00

Notes. Career, C = Career condition. Work-family, WF = Work-family condition. SA = Self-appraisal. GI = Gathering information. GS = Goal selection.

RESULTS

Table 7 presents the correlations among the key study variables.

Table 7

Correlations among Study Variables

Variable	Mean	SD	1	2	3	4	5	6	7
1. Condition – Time 1	0.50	0.50							
2. Sex – Time 1	1.69	0.47	.12						
3. Age – Time 1	2.86	1.02	-.02	-.10					
4. Marital – Time 1	0.25	0.44	.02	-.07	.44				
5. Relationship – Time 1	1.39	0.49	.08	.01	-.26	-.46			
6. School – Time 1	0.49	0.50	.02	-.05	.16	.16	.09		
7. Year – Time 1	1.94	0.95	.19	-.03	.29	.47	-.17	.30	
8. Parent – Time 1	0.10	.031	.10	-.17	.25	.51	-.27	.10	.35
9. Ethnic – Time 1	0.81	0.40	-.21	.07	-.12	.07	-.14	-.08	-.11
10. CSE – Time 1	3.59	0.55	-.16	-.09	.07	.07	-.15	.07	.13
11. WorkImp – Time 1	3.30	0.69	-.10	-.10	-.21	-.23	.16	.07	-.19
12. FamImp – Time 1	4.37	0.68	-.02	-.01	-.14	.09	.00	.00	.23
13. CDSE – Time 1	3.72	0.57	-.21	.05	.14	-.01	-.14	.01	.03
14. CDSE – Time 2	3.82	0.60	-.30	.06	.17	.06	-.16	-.12	.03
15. CDSE – Time 3	3.83	0.50	-.24	-.08	.16	.10	-.07	.00	.08
16. WFDMSE – Time 1	3.50	0.63	-.20	-.01	.14	.00	-.06	-.07	.04
17. WFDMSE – Time 2	3.72	0.66	-.24	.10	.12	.10	-.22	-.15	.05
18. WFDMSE – Time 3	3.68	0.57	-.22	-.06	.14	.09	-.09	-.05	.01
19. WFRPK – Time 1	2.87	0.76	-.11	-.11	.23	.09	-.15	-.03	.12
20. WFRPK – Time 2	3.05	0.72	-.10	-.04	.28	.12	-.20	-.03	.12
21. WFRPK – Time 3	3.16	0.74	-.14	-.02	.24	.09	-.06	-.10	.08
22. AWFC TWIF – Time 1	3.40	0.75	.11	-.01	.05	-.05	.06	.16	.03
23. AWFC TFIW – Time 1	3.06	0.73	.07	.12	.04	.16	-.10	.05	.01
24. AWFC SWIF – Time 1	2.57	0.88	.17	.13	-.02	.10	-.02	.06	.09
25. AWFC SFIW – Time 1	2.24	.083	.20	.09	-.03	.04	-.01	-.01	.08
26. AWFC BWIF – Time 1	2.43	0.84	.11	-.25	-.05	-.05	.07	.09	.04
27. AWFC BFIW – Time 1	2.30	0.74	.03	-.21	-.04	-.04	.09	.06	-.02
28. AWFC TWIF – Time 2	3.12	0.86	.06	-.02	.02	.03	-.04	.09	.07
29. AWFC TFIW – Time 2	2.85	0.79	.06	-.01	.12	.09	-.01	-.02	.08
30. AWFC SWIF – Time 2	2.47	0.88	.24	.11	.01	.05	.05	.01	.14
31. AWFC SFIW – Time 2	2.21	0.72	.27	-.01	-.01	-.06	.12	-.01	.04
32. AWFC BWIF – Time 2	2.38	0.78	.18	-.23	.01	-.07	.21	.07	.04
33. AWFC BFIW – Time 2	2.29	0.80	.16	-.22	-.02	-.07	.11	.08	.05
34. AWFC TWIF – Time 3	3.19	0.87	.04	-.08	.07	.14	-.21	.14	.06
35. AWFC TFIW – Time 3	2.96	0.88	-.03	-.06	.03	.29	-.16	.12	.12
36. AWFC SWIF – Time 3	2.49	0.91	.28	.05	.00	.07	-.08	-.06	.07
37. AWFC SFIW – Time 3	2.26	0.84	.30	-.04	-.06	.08	-.15	.03	.12
38. AWFC BWIF – Time 3	2.40	0.74	.20	-.22	.01	.01	.03	.08	.00
39. AWFC BFIW – Time 3	2.33	0.73	.03	-.33	-.03	-.01	-.02	.12	-.01
40. MedCert – Time 1	3.18	1.10	-.08	-.01	.14	.10	-.20	.06	.26
41. MedCert – Time 2	3.19	1.02	-.07	-.03	.15	.10	-.14	.12	.27
42. MedCert – Time 3	3.19	1.01	-.05	-.14	.17	.11	-.19	.02	.21
43. FamCert – Time 1	3.47	1.06	-.10	.01	.23	.33	-.39	.09	.25
44. FamCert – Time 2	3.46	1.07	-.15	.04	.20	.34	-.38	.07	.31
45. FamCert – Time 3	3.53	1.11	-.05	.04	.22	.30	-.36	.17	.35
46. Info – Time 1	2.84	0.84	.13	.22	.30	.27	-.24	-.05	.34
47. Info – Time 3	2.13	0.79	.15	.01	-.01	.25	-.15	-.04	.15
48. Receive newsletter	0.56	0.50	.07	.20	.00	.04	-.20	-.05	-.02
49. Visit website	0.20	0.40	.00	.05	.05	.13	-.17	.06	.08

Notes. Notes presented on following pages.

Table 7, continued

Correlations among Study Variables

Variable	8	9	10	11	12	13	14	15	16
9. Ethnic – Time 1	-.14								
10. CSE – Time 1	.04	.20							
11. WorkImp – Time 1	-.27	-.02	-.05						
12. FamImp – Time 1	.23	-.05	.05	-.09					
13. CDSE – Time 1	.01	.11	.46	-.13	-.01				
14. CDSE – Time 2	.12	.06	.48	-.09	.01	.81			
15. CDSE – Time 3	.08	.09	.38	-.07	-.08	.76	.79		
16. WFDMSE – Time 1	.02	.07	.48	-.06	.02	.75	.73	.67	
17. WFDMSE – Time 2	.14	.11	.50	-.14	.07	.70	.83	.74	.78
18. WFDMSE – Time 3	.02	.06	.41	-.12	-.07	.69	.72	.86	.73
19. WFRPK – Time 1	.11	-.07	.51	-.04	-.14	.64	.55	.46	.71
20. WFRPK – Time 2	.19	-.12	.42	-.04	-.14	.60	.56	.47	.65
21. WFRPK – Time 3	.10	-.18	.35	-.15	-.09	.53	.48	.48	.55
22. AWFC TWIF – Time 1	.12	-.14	-.14	.07	.03	-.22	-.21	-.22	-.31
23. AWFC TFIW – Time 1	.19	.19	-.16	-.11	.08	-.39	-.32	-.37	-.42
24. AWFC SWIF – Time 1	-.01	.02	-.50	.05	.11	-.46	-.47	-.44	-.51
25. AWFC SFIW – Time 1	-.02	-.14	-.50	.08	.12	-.44	-.42	-.42	-.47
26. AWFC BWIF – Time 1	.11	-.32	-.41	.01	.18	-.35	-.33	-.26	-.34
27. AWFC BFIW – Time 1	.09	-.30	-.44	-.01	.06	-.35	-.32	-.25	-.35
28. AWFC TWIF – Time 2	.11	.03	-.18	.04	.05	-.22	-.28	-.19	-.30
29. AWFC TFIW – Time 2	.28	-.10	-.20	-.11	.19	-.33	-.33	-.31	-.34
30. AWFC SWIF – Time 2	-.02	-.02	-.44	.01	.08	-.40	-.46	-.37	-.47
31. AWFC SFIW – Time 2	-.14	-.25	-.44	.15	.00	-.40	-.48	-.37	-.41
32. AWFC BWIF – Time 2	.07	-.34	-.42	.00	.05	-.32	-.37	-.21	-.33
33. AWFC BFIW – Time 2	.11	-.37	-.31	.04	-.02	-.23	-.25	-.16	-.20
34. AWFC TWIF – Time 3	.20	.05	-.02	.08	-.01	-.15	-.20	-.16	-.20
35. AWFC TFIW – Time 3	.28	.18	-.08	-.11	.14	-.32	-.27	-.28	-.34
36. AWFC SWIF – Time 3	.01	.07	-.35	.13	.08	-.35	-.33	-.37	-.42
37. AWFC SFIW – Time 3	.05	-.20	-.40	.21	.08	-.35	-.33	-.39	-.45
38. AWFC BWIF – Time 3	.13	-.17	-.20	.03	.06	-.11	-.16	-.11	-.21
39. AWFC BFIW – Time 3	.15	-.29	-.22	.13	.02	-.10	-.10	-.10	-.19
40. MedCert – Time 1	.28	-.05	.25	-.03	.14	.53	.42	.49	.28
41. MedCert – Time 2	.24	-.08	.24	.01	.16	.55	.44	.54	.28
42. MedCert – Time 3	.18	-.17	.27	.01	.09	.54	.45	.51	.38
43. FamCert – Time 1	.37	.03	.33	-.20	.40	.30	.31	.18	.31
44. FamCert – Time 2	.39	.00	.29	-.26	.36	.39	.37	.28	.34
45. FamCert – Time 3	.36	-.09	.30	-.30	.34	.31	.31	.29	.24
46. Info – Time 1	.13	.00	.20	-.30	.25	.15	.10	.06	.16
47. Info – Time 3	.21	.01	.17	-.37	.24	-.02	.03	.05	.07
48. Receive newsletter	.06	.22	.03	-.11	-.04	-.03	.08	.02	-.01
49. Visit website	.13	.13	.01	-.15	-.04	-.01	.04	.06	-.01

Notes. For correlations involving a Time 3 variable, N = 91. For correlations involving between Time 1and Time 2 variables (pre and/or post), N = 105 to 108. When N = 91, correlations greater than |.21| are significant at p = .05 and correlations greater than |.27| are significant at p = .01. Marital = Marital status (0 = non-married, 1 = married). Relationship – Relationship status (0 = not in a relationship, 1 = in a relationship). School = Medical school (0 = College of Osteopathic Medicine, 1 = College of Human Medicine). Year = Year in school. Parent = Parental status (0 = no children in home, 1 = children in home). Ethic = Ethnicity (0 = non-white, 1 = white). CSE = Core self-evaluations. WorkImp = Work importance. FamImp = Family importance. CDSE = Career decision self-efficacy.

Table 7, continued

Correlations among Study Variables

Variable	17	18	19	20	21	22	23	24	25
17. WFDMSE – Time 2									
18. WFDMSE – Time 3	.77								
19. WFRPK – Time 1	.56	.52							
20. WFRPK – Time 2	.60	.54	-.85						
21. WFRPK – Time 3	.53	.58	-.74	-.79					
22. AWFC TWIF – Time 1	-.26	-.28	-.30	-.30	-.19				
23. AWFC TFIW – Time 1	-.27	-.28	-.42	-.37	-.26	.33			
24. AWFC SWIF – Time 1	-.52	-.52	-.64	-.54	-.47	.34	.36		
25. AWFC SFIW – Time 1	-.41	-.39	-.54	-.41	-.33	.09	.36	.72	
26. AWFC BWIF – Time 1	-.34	-.34	-.44	-.41	-.40	.13	.09	.38	.45
27. AWFC BFIW – Time 1	-.33	-.28	-.41	-.34	-.27	.17	.18	.43	.48
28. AWFC TWIF – Time 2	-.35	-.25	-.30	-.37	-.22	.76	.44	.35	.14
29. AWFC TFIW – Time 2	-.32	-.30	-.35	-.38	-.21	.39	.72	.32	.27
30. AWFC SWIF – Time 2	-.51	-.44	-.58	-.55	-.41	.37	.33	.85	.65
31. AWFC SFIW – Time 2	-.51	-.37	-.47	-.42	-.27	.17	.28	.63	.85
32. AWFC BWIF – Time 2	-.40	-.31	-.39	-.41	-.42	.10	.06	.41	.39
33. AWFC BFIW – Time 2	-.31	-.20	-.27	-.26	-.31	.14	.10	.37	.35
34. AWFC TWIF – Time 3	-.19	-.22	-.21	-.24	-.32	.67	.30	.20	.04
35. AWFC TFIW – Time 3	-.24	-.29	-.35	-.34	-.38	.31	.66	.34	.23
36. AWFC SWIF – Time 3	-.41	-.46	-.47	-.44	-.48	.35	.24	.78	.57
37. AWFC SFIW – Time 3	-.40	-.47	-.40	-.33	-.43	.19	.21	.61	.72
38. AWFC BWIF – Time 3	-.17	-.27	-.24	-.27	-.44	.14	.08	.30	.20
39. AWFC BFIW – Time 3	-.16	-.21	-.21	-.22	-.37	.15	.05	.29	.21
40. MedCert – Time 1	.37	.38	.31	.29	.27	-.15	-.15	-.26	-.16
41. MedCert – Time 2	.37	.41	.32	.31	.32	-.10	-.16	-.29	-.21
42. MedCert – Time 3	.45	.46	.39	.39	.41	-.24	-.24	-.34	-.27
43. FamCert – Time 1	.38	.23	.32	.37	.32	-.05	.00	-.18	-.18
44. FamCert – Time 2	.39	.29	.36	.36	.35	-.09	-.09	-.20	-.24
45. FamCert – Time 3	.35	.33	.27	.30	.35	-.07	-.04	-.21	-.17
46. Info – Time 1	.16	.09	.14	.11	.14	.12	.07	-.03	-.10
47. Info – Time 3	.08	.16	.06	-.01	.07	-.08	.00	-.02	-.10
48. Receive newsletter	.16	.11	-.03	-.07	-.03	.10	.08	-.08	-.02
49. Visit website	.08	.04	-.08	-.09	-.05	.05	.10	-.06	-.09

Notes, continued. WFDMSE = Work-family decision-making self-efficacy. WFRPK = Work-family role-planning knowledge. AWFC = Anticipated work-family conflict (T = time-based, S = strain-based, B = behavior-based, WIF = work-interference-with-family, FIW = family-interference-with-work). Medcert = Certainty regarding medical specialty plans. Famcert = Certainty regarding family plans. Info = Information gathering behaviors.

Table 7, continued

Correlations among Study Variables

Variable	26	27	28	29	30	31	32	33	34
27. AWFC BFIW – Time 1	.80								
28. AWFC TWIF – Time 2	.13	.18							
29. AWFC TFIW – Time 2	.22	.28	.56						
30. AWFC SWIF – Time 2	.33	.37	.47	.37					
31. AWFC SFIW – Time 2	.44	.43	.26	.32	.70				
32. AWFC BWIF – Time 2	.75	.75	.22	.28	.44	.47			
33. AWFC BFIW – Time 2	.70	.79	.27	.28	.42	.47	.88		
34. AWFC TWIF – Time 3	.11	.08	.69	.33	.20	.11	.05	.13	
35. AWFC TFIW – Time 3	.17	.20	.41	.63	.27	.20	.14	.19	.52
36. AWFC SWIF – Time 3	.30	.28	.33	.18	.77	.58	.34	.31	.30
37. AWFC SFIW – Time 3	.45	.38	.16	.18	.53	.69	.37	.36	.24
38. AWFC BWIF – Time 3	.54	.41	.16	.15	.26	.23	.68	.59	.23
39. AWFC BFIW – Time 3	.55	.48	.16	.13	.22	.27	.65	.68	.21
40. MedCert – Time 1	-.06	-.08	-.09	-.05	-.22	-.20	-.16	-.10	-.04
41. MedCert – Time 2	-.08	-.12	-.10	-.06	-.25	-.22	-.18	-.13	-.03
42. MedCert – Time 3	-.11	-.06	-.18	-.09	-.28	-.22	-.10	-.05	-.22
43. FamCert – Time 1	-.21	-.22	-.05	.05	-.22	-.27	-.28	-.19	-.04
44. FamCert – Time 2	-.20	-.20	-.12	.01	-.25	-.35	-.24	-.17	-.09
45. FamCert – Time 3	-.12	-.12	-.08	.01	-.18	-.26	-.12	-.05	-.11
46. Info – Time 1	-.11	-.17	.14	.10	.04	-.07	-.14	-.14	.08
47. Info – Time 3	.08	.03	.02	.01	.00	-.16	-.01	.05	.05
48. Receive newsletter	-.09	-.05	.05	-.07	-.09	-.18	-.18	-.18	.10
49. Visit website	.03	-.01	.03	-.04	-.12	-.14	-.05	-.07	.16

Table 7, continued

Correlations among Study Variables

Variable	35	36	37	38	39	40	41	42	43
36. AWFC SWIF – Time 3	.34								
37. AWFC SFIW – Time 3	.34	.72							
38. AWFC BWIF – Time 3	.29	.41	.44						
39. AWFC BFIW – Time 3	.23	.35	.44	.80					
40. MedCert – Time 1	-.18	-.18	-.06	-.10	-.03				
41. MedCert – Time 2	-.18	-.21	-.12	-.05	-.03	.93			
42. MedCert – Time 3	-.26	-.31	-.20	-.15	-.12	.84	.85		
43. FamCert – Time 1	-.05	-.16	-.23	-.15	-.12	.25	.32	.23	
44. FamCert – Time 2	-.08	-.24	-.28	-.11	-.07	.31	.39	.30	.88
45. FamCert – Time 3	-.07	-.25	-.28	-.10	-.11	.28	.36	.32	.84
46. Info – Time 1	.00	-.02	-.15	-.21	-.26	.12	.09	.13	.34
47. Info – Time 3	.03	.03	-.07	-.04	-.10	.05	.02	.02	.10
48. Receive newsletter	-.02	-.01	-.07	-.12	-.28	-.15	-.15	-.17	.06
49. Visit website	.06	-.07	-.06	.11	-.07	-.04	-.03	-.05	.04

Table 7, continued
Correlations among Study Variables

Variable	44	45	46	47	48
45. FamCert – Time 3	.86				
46. Info – Time 1	.30	.29			
47. Info – Time 3	.18	.13	.37		
48. Receive newsletter	.06	.07	.24	.23	
49. Visit website	.04	.05	.12	.18	.45

Predictors of Anticipated Work-family Conflict

In the following section, I examine a set of potential predictors of anticipated work-family conflict. These relationships are all examined using data collected at Time 1.

Demographics. Hypotheses 1 through 8 address the relationship between demographics (i.e., age, year in school, gender, marital status, parental status, relationship status) and anticipated work-family conflict. Out of 36 correlations, only two were significant. Women reported anticipating significantly less behavior-based FIW (r = -.21, p = .03). This relationship is in the expected direction. Thus, Hypothesis 3c is supported, but not Hypothesis 3a or 3b. However, women also reported anticipating significantly less behavior-based WIF (r = -.25, p = .01). However, this relationship is in the opposite direction than what was expected. Therefore, Hypothesis 4 is not supported. Overall, Hypotheses 1 through 8 (except for 3c) were rejected showing that demographics were largely uncorrelated with any of the six types of AWFC. However, women did anticipate less behavior-based conflict in both directions.

Core self-evaluations. Hypothesis 9 predicted that individuals with higher core self-evaluations would anticipate less work-family conflict. At Time 1, core self-evaluations were significantly correlated with anticipated strain-based conflict in both directions and anticipated behavior-based conflict in both directions, but not with

anticipated time-based conflict in either direction. Participants with higher core self-evaluations anticipated less strain-based WIF (r = -.50, p = .00), less strain-based FIW (r = -.50, p = .00), less behavior-based WIF (r = -.41, p = .00) and less behavior-based FIW (r = -.44, p = .00). Therefore, Hypothesis 9a and 9b (time-based conflict) are not supported whereas Hypotheses 9c, 9d, 9e, and 9f (strain- and behavior-based conflict) are supported.

Role importance. Hypotheses 10 through 13 examine the relationship between anticipated work-family conflict and role importance (in both the family and work roles). I expected that individuals with greater work role importance would anticipate greater work-interference-with-family and less family-interference-with-work. Relationships in the opposite direction were predicted for greater family role importance. Of the twelve relationships examined, none were significant. Work and family role importance were not associated with any of the six types of AWFC. In other words, Hypotheses 10 through 13 were not supported.

Role-planning knowledge. Hypothesis 14 predicted that greater role-planning knowledge would be associated with less AWFC. At Time 1, individuals with greater role-planning knowledge did anticipate less time-based WIF (r = -.30, p = .00), less time-based FIW (r = -.42, p = .00), less strain-based WIF (r = -.64, p = .00), less strain-based FIW (r = -.54, p = .00), less behavior-based WIF (r = -.44, p = .00), and less behavior-based FIW (r = -.41, p = .00). Table 8 shows the results of a hierarchical regression examining the role-planning knowledge as a predictor of each of the six types of AWFC at Time 1, when controlling for core self-evaluations. Controlling for core self-evaluations allows us to examine the incremental predictive validity of role-planning

knowledge while acknowledging (and controlling for) the effects of more generalized self-efficacy (as captured by the core self-evaluations scale). Note that demographics are not controlled for because they are largely uncorrelated with AWFC. The results of these hierarchical regressions indicate that role-planning knowledge explains a significant amount of incremental variance in each of the six types of AWFC, when controlling for core self-evaluations. Furthermore, note in Table 2 that role-planning knowledge at each administration (Time 1, Time 2, Time 3) is negatively correlated with almost all forms of AWFC at each administration. Given this information, Hypothesis 14 is supported.

Table 8

Hierarchical Regressions for H14: Role-planning Knowledge Predicting Anticipated Work-Family Conflict (N = 108)

	R^2	ΔR^2	*p*
DV: Time 1 time-based WIF			
Step 1 – Core Self-evaluations	.02	.02	.14
Step 2 – Time 1 Role-planning Knowledge	.09	.07	.01
DV: Time 1 time-based FIW			
Step 1 – Core Self-evaluations	.02	.02	.11
Step 2 – Time 1 Role-planning Knowledge	.18	.16	.00
DV: Time 1 strain-based WIF			
Step 1 – Core Self-evaluations	.25	.25	.00
Step 2 – Time 1 Role-planning Knowledge	.45	.20	.00
DV: Time 1 strain-based FIW			
Step 1 – Core Self-evaluations	.25	.25	.00
Step 2 – Time 1 Role-planning Knowledge	.36	.11	.00
DV: Time 1 behavior-based WIF			
Step 1 – Core Self-evaluations	.17	.17	.00
Step 2 – Time 1 Role-planning Knowledge	.24	.07	.00
DV: Time 1 behavior-based WIF			
Step 1 – Core Self-evaluations	.20	.20	.00
Step 2 – Time 1 Role-planning Knowledge	.24	.04	.02

Notes. DV = Dependent variable. WIF = Work-interference-with-family. FIW = Family-interference-with-work.

Supplemental analyses were conducted to examine the relationship over time between role-planning knowledge and the six types of AWFC. The figure representing

this analysis is presented in Figure 11. Note that this is a path analysis and that no latent variables are modeled due to the limited sample size. Table 9 shows that while role-planning knowledge and AWFC are significantly negatively correlated at Time 1 (for all six types of AWFC), the paths from role-planning knowledge to AWFC are not significant over time. In other words, there is no evidence that role-planning knowledge is causing AWFC over time (given the time frame examined here).

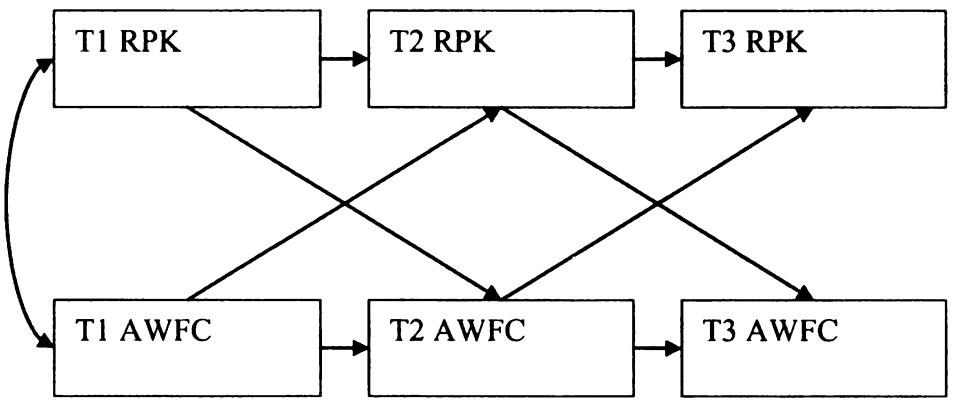

Figure 11. Path Analysis: Relationships Between Anticipated Work-family Conflict and Work-family Role-planning Knowledge Over Time
Notes. T1= Time 1. T2 = Time 2. T3 = Time 3. RPK = Role-planning knowledge. AWFC = Anticipated work-family conflict. Each of the six types of AWFC was

Table 9

Path Analysis for H14: Auto-correlated Cross-lagged Relationships Between Anticipated Work-family Conflict and Work-family Role-planning Knowledge Over Time

Type of AWFC	N	χ^2	Df	P	CFI	RMSEA	COV. at T1	SE (p)
Time-based WIF	91	27.26	6	.00	.94	.20	-.17 (.01)	
					T1RPK → T2TWIF			-.03 (.64)
					T1TWIF → T2RPK			-.02 (.71)
					T2RPK → T3TWIF			-.04 (.65)
					T2TWIF→ T3RPK			.02 (.82)
Time-based FIW	91	29.39	6	.00	.94	.21	-.24 (.00)	
					T1RPK → T2TFIW			.00 (.98)
					T1TFIW → T2RPK			-.03 (.65)
					T2RPK → T3TFIW			-.15 (.07)
					T2TFIW→ T3RPK			.06 (.39)
Strain-based WIF	91	36.56	6	.00	.94	.24	-.45 (.00)	
					T1RPK → T2SWIF			-.02 (.63)
					T1SWIF → T2RPK			.03 (.63)
					T2RPK → T3SWIF			-.05 (.50)
					T2SWIF → T3RPK			.00 (.96)
Strain-based FIW	91	33.07	6	.00	.94	.22	-.35 (.00)	
					T1RPK → T2SFIW			.06 (.35)
					T1SFIW → T2RPK			.08 (.20)
					T2RPK → T3SFIW			-.10 (.22)
					T2SFIW → T3RPK			.01 (.94)
Behavior-based WIF	91	14.20	6	.03	.98	.12	-.28 (.00)	
					T1RPK → T2BWIF			-.03 (.66)
					T1BWIF → T2RPK			-.03 (.59)
					T2RPK → T3BWIF			-.04 (.66)
					T2BWIF → T3RPK			-.17 (.01)
Behavior-based FIW	91	16.25	6	.01	.97	.14	-.21 (.00)	
					T1RPK → T2BFIW			.09 (.21)
					T1BFIW → T2RPK			.02 (.77)
					T2RPK → T3BFIW			-.10 (.18)
					T2BFIW → T3RPK			-.17 (.01)

Notes. COV. = Covariance at T1. SE = Standardized estimate (direction of arrows reflects direction of the path). T1 = Time 1. T2 = Time 2. T3 = Time 3. RPK = Role-planning knowledge. T = time-based, S = strain-based, B = behavior-based, WIF = work-interference-with-family, FIW = family-interference-with-work.

Work-family decision-making self-efficacy. Hypothesis 15 addresses the relationship of anticipated work-family conflict to WFDMSE. At Time 1, individuals with greater WFDMSE did anticipate less time-based WIF (r = -.31, p = .00), less time-based FIW (r = -.42, p = .00), less strain-based WIF (r = -.51, p = .00), less strain-based FIW (r = -.47, p = .00), less behavior-based WIF (r = -.34, p = .00), and less behavior-based FIW (r = -.35, p = .00). Therefore, Hypothesis 15 is supported. Table 10 shows the results of a hierarchical regression examining WFDMSE as a predictor of each of the six types of AWFC at Time 1 when controlling for core self-evaluations (to control for the effects of more generalized self-efficacy). Note that demographics are not controlled for because they are largely uncorrelated with AWFC. Results indicate that WFDMSE explains a significant amount of incremental variance in four of the six types of AWFC (time-based WIF, time-based FIW, strain-based WIF, and strain-based FIW).

Table 10

Hierarchical Regressions for H15: Work-family Decision-making Self-efficacy Predicting Anticipated Work-Family Conflict (N = 108)

	R^2	ΔR^2	*p*
DV: Time 1 time-based WIF			
Step 1 – Core Self-evaluations	.02	.02	.14
Step 2 – Time 1 Work-family Decision-making Self-efficacy	.10	.08	.00
DV: Time 1 time-based FIW			
Step 1 – Core Self-evaluations	.02	.02	.11
Step 2 – Time 1 Work-family Decision-making Self-efficacy	.18	.15	.00
DV: Time 1 strain-based WIF			
Step 1 – Core Self-evaluations	.25	.25	.00
Step 2 – Time 1 Work-family Decision-making Self-efficacy	.34	.09	.00
DV: Time 1 strain-based FIW			
Step 1 – Core Self-evaluations	.25	.25	.00
Step 2 – Time 1 Work-family Decision-making Self-efficacy	.32	.07	.00
DV: Time 1 behavior-based WIF			
Step 1 – Core Self-evaluations	.17	.17	.00
Step 2 – Time 1 Work-family Decision-making Self-efficacy	.19	.03	.07
DV: Time 1 behavior-based WIF			
Step 1 – Core Self-evaluations	.20	.20	.00
Step 2 – Time 1 Work-family Decision-making Self-efficacy	.22	.02	.07

Notes. DV = Dependent variable. WIF = Work-interference-with-family. FIW = Family-interference-with-work.

Supplemental analyses were conducted to examine the relationship over time between WFDMSE and the six types of AWFC. The figure representing this analysis is presented in Figure 12. Note that this is a path analysis and that no latent variables are modeled due to the limited sample size. Table 11 shows that while WFDMSE and AWFC are significantly negatively correlated at Time 1 (for all six types of AWFC), the paths from WFDMSE to AWFC are not significant over time. In other words, there is no evidence that WFDMSE is causing AWFC over time (given the time frame examined here). Note that for anticipated behavior-based WIF and FIW, there is significant relationship between Time 2 AWFC and Time 3 WFDMSE. A causal interpretation

would suggest that increases in anticipated behavior-based conflict are causing decreases in WFDMSE over time. In sum, while there is evidence that WFDMSE is negatively correlated with all six forms of AWFC (thus supporting Hypothesis 15), there is no evidence that WFDMSE is causing AWFC over time.

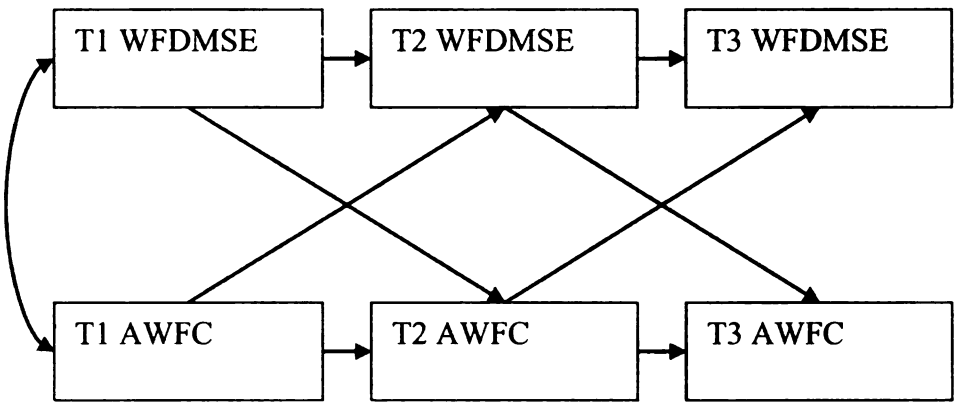

Figure 12. Path Analysis: Relationships Between Anticipated Work-family Conflict and Work-family Decision-making Self-efficacy Over Time
Notes. T1= Time 1. T2 = Time 2. T3 = Time 3. WFDMSE = Work-family decision-making self-efficacy. AWFC = Anticipated work-family conflict. Each of the six types of AWFC was examined in separate path analyses.

Table 11

Path Analysis for H15: Auto-correlated Cross-lagged Relationships Between Anticipated Work-family Conflict and Work-family Decision-making Self-efficacy Over Time

Type of AWFC	N	χ^2	Df	P	CFI	RMSEA	COV. at T1	SE (p)
Time-based WIF	91	27.26	6	.00	.94	.20	-.28 (.01)	
						T1WFDMSE → T2TWIF		-.03 (.64)
						T1TWIF → T2WFDMSE		-.02 (.71)
						T2WFDMSE → T3TWIF		-.04 (.65)
						T2TWIF→ T3WFDMSE		.02 (.82)
Time-based FIW	91	29.39	6	.00	.94	.21	-.24 (.00)	
						T1WFDMSE → T2TFIW		.00 (.98)
						T1TFIW → T2WFDMSE		-.03 (.65)
						T2WFDMSE → T3TFIW		-.15 (.07)
						T2TFIW→ T3WFDMSE		.06 (.39)
Strain-based WIF	91	36.56	6	.00	.94	.24	-.45 (.00)	
						T1WFDMSE → T2SWIF		-.02 (.81)
						T1SWIF → T2WFDMSE		.03 (.63)
						T2WFDMSE → T3SWIF		-.05 (.50)
						T2SWIF → T3WFDMSE		.00 (.16)
Strain-based FIW	91	33.07	6	.00	.94	.22	-.35 (.00)	
						T1WFDMSE → T2SFIW		.06 (.35)
						T1SFIW → T2WFDMSE		.08 (.20)
						T2WFDMSE → T3SFIW		-.10 (.22)
						T2SFIW → T3WFDMSE		.01 (.94)
Behavior-based WIF	91	14.20	6	.03	.98	.12	-.28 (.00)	
						T1WFDMSE → T2BWIF		-.03 (.66)
						T1BWIF → T2WFDMSE		-.03 (.59)
						T2WFDMSE → T3BWIF		-.04 (.66)
						T2BWIF → T3WFDMSE		-.17 (.01)
Behavior-based FIW	91	16.25	6	.01	.97	.14	-.21 (.00)	
						T1WFDMSE → T2BFIW		.09 (.21)
						T1BFIW → T2WFDMSE		.02 (.77)
						T2WFDMSE → T3BFIW		-.10 (.18)
						T2BFIW → T3WFDMSE		-.17 (.01)

Notes. COV. = Covariance at T1. SE = Standardized estimate (direction of arrows reflects direction of the path). T1 = Time 1. T2 = Time 2. T3 = Time 3. WFDMSE = Work-family decision-making self-efficacy. T = time-based, S = strain-based, B = behavior-based, WIF = work-interference-with-family, FIW = family-interference-with-work.

Effects of the Intervention on Career and Work-family Decision-making Self-efficacy

Hypothesis 16 predicted that individuals in the Work-family condition would have higher WFDMSE than those in the Career condition following the intervention. Table 12 shows the mean levels of WFDMSE at each time point for both conditions. Although participants were randomly assigned to conditions, the results of a one-way ANOVA indicates that initial WFDMSE (at Time 1) differed significantly between the two groups, with the Career condition having higher initial levels than the Work-family condition ($F = 4.51$, $p = .04$). Between-condition differences in WFDMSE at Time 2 and Time 3 were examined using an ANCOVA controlling for Time 1 differences between conditions in WFDMSE. Results indicated that there were no significant between-condition differences at Time 2 ($F = 1.13$, $p = .29$) or at Time 3 ($F = 2.75$, $p = .10$). Additionally, I compared the change scores over time in WFDMSE to examine whether condition predicted degree of change. The results of a one-way ANOVA show no differences across conditions in the change in WFDMSE from Time 1 to Time 2 ($F = .56$, $p = .46$). Similarly, the results of a one-way ANOVA show no differences across conditions in the change in WFDMSE from Time 1 to Time 3 ($F = .65$, $p = .42$).

Based on these analyses, Hypothesis 16 is not supported. In other words, the intervention did not have the intended effect of increasing WFDMSE in the Work-family condition more so than in the Career condition.

Table 12
Descriptive Statistics for H15: WFDMSE by Condition

	N	Mean	*SD*
Career condition			
WFDMSE Time 1	54	3.63	0.60
WFDMSE Time 2	54	3.87[a]	0.57
WFDMSE Time 3	47	3.81[b]	0.60
Work-family condition			
WFDMSE Time 1	54	3.38	0.64
WFDMSE Time 2	54	3.56[a]	0.71
WFDMSE Time 3	44	3.55[b]	0.52

Notes. WFDMSE = Work-family decision-making self-efficacy. [a]When controlling for Time 1 levels of WFDMSE, these means are not significantly different from one another. [b] When controlling for Time 1 levels of WFDMSE, these means are not significantly different from one another.

It is also interesting to examine the pattern of change over time within each condition. For the Career condition, there was a significant increase in WFDMSE from Time 1 to Time 2, as examined by a paired-samples t-test ($t = 3.69$, $p = .00$). From Time 2 to Time 3, there was no significant change in the Career condition ($t = 1.12$, $p = .27$). From Time 1 to Time 3, the change was significant ($t = -2.93$, $p = .01$). In other words, in the Career condition, WFDMSE increased and this increase persisted over time.

In the Work-family condition, there was also a significant increase in WFDMSE from Time 1 to Time 2 ($t = -3.49$, $p = .00$). From Time 2 to Time 3, there was no significant change ($t = 1.42$, $p = .16$). From Time 1 to Time 3, the change was significant ($t = -2.22$, $p = .03$). In other words, in the Work-family condition, WFDMSE increased and this increase persisted over time. Thus, it appears that both interventions (both Career and Work-family) boosted participant WFDMSE and that these increases

persisted over the two-week lag. No differential effectiveness of one intervention over the other is discernable.

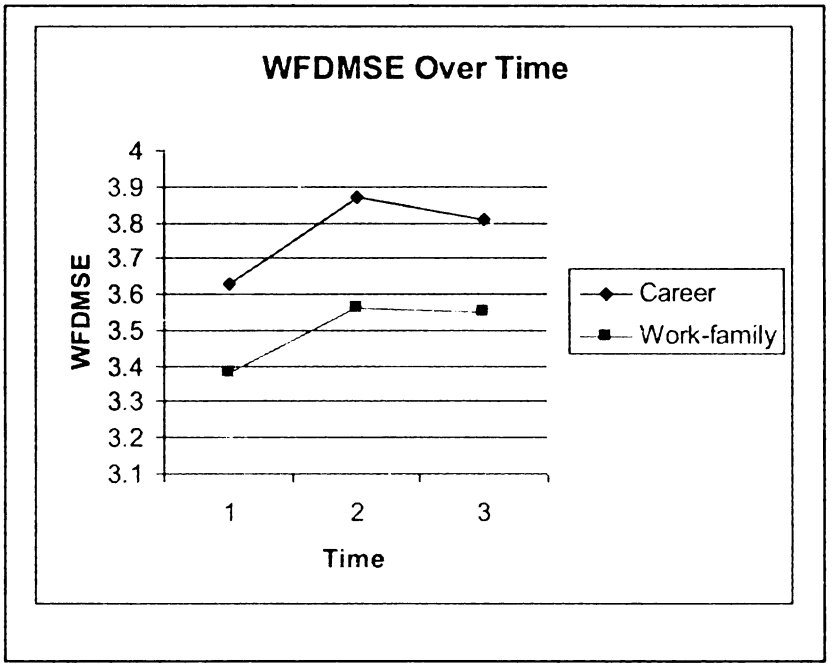

Figure 13. Work-family Decision-making Self-efficacy Over Time
Notes. WFDMSE = Work-family decision-making self-efficacy

Hypothesis 17 examined the influence of the interventions on CDSE. Table 13 shows the mean levels of CDSE at each time point for both conditions and Figure 14 shows a graph of CDSE at each time point for both conditions. Similar to the previous hypothesis, it is important to control for pre-existing differences across groups when comparing the impact of the intervention on CDSE. In this case, it is preferable to control for pre-existing differences in Time 1 WFDMSE when looking at differences in CDSE at Time 2 and Time 3. An ANCOVA was conducted examining differences across conditions in Time 2 CDSE controlling for Time 1 WFDMSE. Results indicated a significant difference across groups ($F = 5.97$, $p = .02$). The Career condition had greater

CDSE at Time 2 than the Work-family condition, when controlling for Time 1 WFDMSE. A similar analysis was conducted to compare Time 3 CDSE across conditions controlling for Time 1 WFDMSE. In this case, there was no significant difference across conditions ($F = 3.49$, $p = .07$). In other words, the raised CDSE in the Career condition (as opposed to the Work-family condition) does not persist over time.

Additionally, I compared the change scores over time in CDSE to examine whether condition predicted degree of change. The results of a one-way ANOVA show no differences across conditions in the change in CDSE from Time 1 to Time 2 ($F = 3.47$, $p = .07$). Similarly, the results of a one-way ANOVA show no differences across conditions in the change in WFDMSE from Time 1 to Time 3 ($F = .29$, $p = .59$).

Table 13
Descriptive Statistics for H17: CDSE by Condition

	N	Mean	*SD*
Career condition			
CDSE Time 1	54	3.84	0.54
CDSE Time 2	54	4.01[a]	0.48
CDSE Time 3	47	3.95[c]	0.49
Work-family condition			
CDSE Time 1	54	3.60	0.57
CDSE Time 2	54	3.64[b]	0.65
CDSE Time 3	44	3.71[c]	0.50

Notes. CDSE = Career decision self-efficacy. [a,b] When controlling for Time 1 WFDMSE, Time 2 CDSE in the Career condition is significantly greater than Time 2 CDSE in the Work-family condition. [c] When controlling for Time 1 WFDMSE, these two means are not significantly different from one another.

The pattern of change in CDSE over time can also be examined. In the Career condition, there was a significant increase in CDSE from Time 1 to Time 2, as assessed by a paired samples t-test ($t = -3.24$, $p = .00$). From Time 1 to Time 3, the change was not

significant (t = -1.97, p = .06). In other words, in the Career condition, CDSE increased but this change diminished over time.

In the Work-family condition, there was no change in CDSE from Time 1 to Time 2 (t = -0.84, p = .41) or from Time 1 to Time 3 (t = -1.57, p = .12). In other words, the Work-family condition had no significant influence on CDSE. Overall, Hypothesis 17 was partially supported in that participants in the Career condition had higher CDSE after the intervention, but this difference did not persist over time.

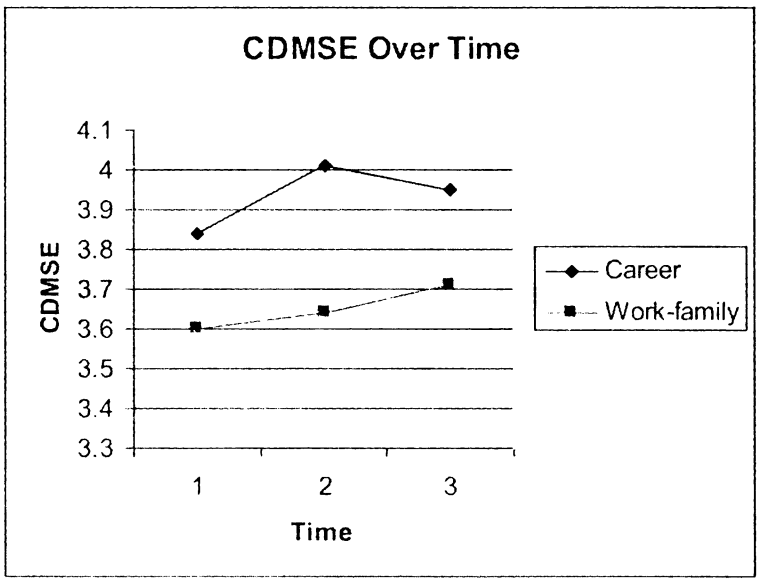

Figure 14. Career Decision Self-efficacy Over Time
Notes. CDSE = Career decision self-efficacy

Effects of the Intervention on Anticipated Work-family Conflict

Hypothesis 18 focused on the differential impact of the two conditions on levels of AWFC. Table 14 presents the mean scores for the six types of AWFC at each time point for both conditions. A MANOVA was conducted to examine the differences across conditions in the six types of AWFC at Time 1. The overall MANOVA was not

significant (F = 1.29, p = .26). However, results of an ANOVA indicate a pre-existing difference (i.e., differences at Time 1) in strain-based FIW (F = 4.41, p = .04).

Based on these findings, a MANCOVA was conducted to examine the differences between conditions in AWFC at Time 2 controlling for Time 1 strain-based FIW. The overall MANCOVA was not significant (F = 1.01, p = .43). However, the ANCOVAs examining the effects of condition on each type of AWFC did indicate a significant difference between conditions in strain-based WIF and strain-based FIW at Time 2 (even when controlling for Time 1 strain-based FIW; F = 4.78, p = .04). In other words, individuals in the Work-family condition anticipated higher strain-based conflict in both directions after the intervention than those in the Career condition (even when controlling for Time 1 differences in this construct).

A second MANCOVA was conducted to examine the differences between conditions in AWFC at Time 3 (again controlling for Time 1 differences in strain-based FIW). The MANCOVA was significant (F = 3.30, p = .01). ANCOVAs examining the differences between conditions in each of the six types of AWFC indicate significant differences between conditions in strain-based WIF (F = 5.06, p = .03) and strain-based FIW (F = 7.21, p = .01). Results indicate that the participants in the Work-family condition were higher in both types of AWFC than the participants in the Career condition, even when controlling for pre-existing differences across groups.

I also examined the patterns of change over time in each of the six types of AWFC over time. Figures 15 through 20 show levels of AWFC graphed across the three time points for each condition (for each type of AWFC). Table 14 presents t-tests of the significance in change over time. Participants in both conditions showed a decrease in

time-based WIF from Time 1 to Time 2, but the magnitude of change in both groups decreased by Time 3. Similarly, participants in both conditions showed a decrease in time-based FIW from Time 1 to Time 2, but this change did not persist over time in either condition. Participants in the Career condition showed a decrease in strain-based WIF that persisted over the two week time-lag, whereas participants in the Work-family condition showed no change. There was no change in strain-based FIW, behavior-based WIF, or behavior-based FIW for either condition.

Hypothesis 18, which predicted that participants in the Work-family condition would have lower levels of AWFC after the intervention than those in the Career condition, was not supported. Participants in both conditions showed lower levels of time-based WIF and time-based FIW after the intervention, although these changes did not persist over time. Only participants in the Career condition showed a decrease in strain-based WIF.

Table 14

Descriptive Statistics and One-way ANOVAs for H18: AWFC Across Conditions

	C Mean	C SD	C N	WF Mean	WF SD	WF N	F	*p*
Time 1								
Time-based WIF	3.31	0.76	54	3.48	0.71	54	1.37	0.24
Time-based FIW	3.01	0.74	54	3.12	0.72	54	0.59	0.44
Strain-based WIF	2.42	0.76	54	2.73	0.98	54	3.29	0.07
Strain-based FIW	2.07	0.69	54	2.40	0.92	54	4.41	0.04
Behavior-based WIF	2.34	0.69	54	2.52	0.97	54	1.27	0.26
Behavior-based FIW	2.28	0.69	54	2.33	0.79	54	0.09	0.76
Time 2								
Time-based WIF	3.07	0.87	52	3.16	0.86	53	0.32	0.57
Time-based FIW	2.80	0.74	52	2.89	0.84	53	0.35	0.55
Strain-based WIF	2.27	0.77	52	2.68	0.93	53	6.13	0.01
Strain-based FIW	2.02	0.57	52	2.40	0.80	53	8.03	0.01
Behavior-based WIF	2.23	0.67	52	2.52	0.85	53	3.51	0.06
Behavior-based FIW	2.17	0.72	52	2.42	0.87	53	2.54	0.11
Time 3								
Time-based WIF	3.16	0.90	47	3.23	0.84	44	0.17	0.68
Time-based FIW	2.99	0.86	47	2.94	0.91	44	0.06	0.80
Strain-based WIF	2.25	0.80	47	2.75	0.95	44	7.45	0.01
Strain-based FIW	2.01	0.68	47	2.52	0.92	44	8.84	0.00
Behavior-based WIF	2.26	0.53	47	2.55	0.90	44	3.75	0.06
Behavior-based FIW	2.31	0.60	47	2.35	0.85	44	0.06	0.81

Notes. C = Career condition. WF = Work-family condition. WIF = Work-interference-with-family. FIW = Family-interference-with-work.

Table 15

Paired-samples T-tests for Differences in Anticipated Work-family Conflict Over Time by Condition

	Career condition		Work-family condition	
	T1 → T2 (t, *p*)	T1 → T3 (t, *p*)	T1 → T2 (t, *p*)	T1 → T3 (t, *p*)
Time-based WIF	3.26 (.00)	1.92 (.06)	3.92 (.00)	2.04 (.05)
Time-based FIW	3.54 (.00)	0.65 (.52)	2.82 (.01)	1.49 (.14)
Strain-based WIF	3.02 (.00)	2.35 (.02)	0.61(.54)	-0.51 (.61)
Strain-based FIW	1.37 (.17)	0.92 (.36)	0.15 (.88)	-1.67 (.10)
Behavior-based WIF	1.31 (.20)	1.26 (.22)	-0.19 (.85)	-0.76 (.45)
Behavior-based FIW	2.02 (.05)	0.23 (.78)	-1.64 (.11)	-0.87 (.39)

Notes. T = Time. WIF = Work-interference-with-family. FIW = Family-interference-with-work.

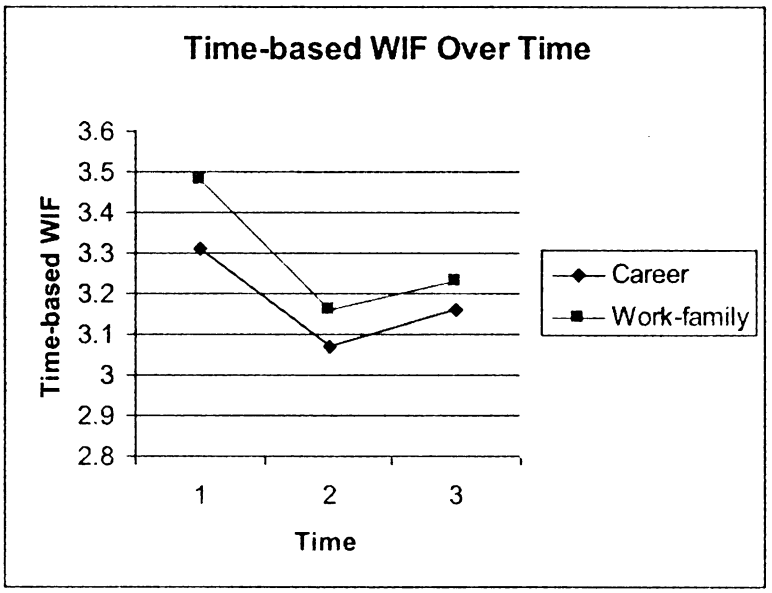

Figure 15. Time-based Work-interference-with-family Over Time
Notes. WIF = Work-interference-with-family

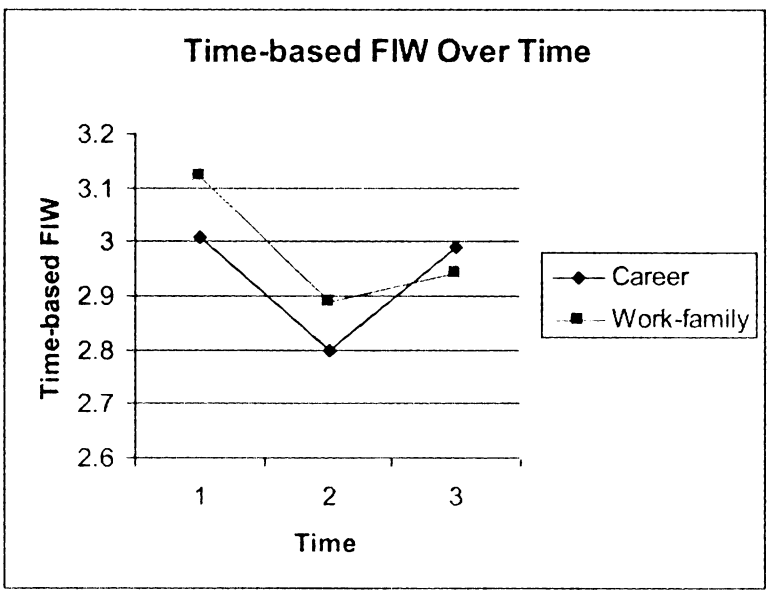

Figure 16. Time-based Family-interference-with-work over Time
Notes. FIW = Family-interference-with-work

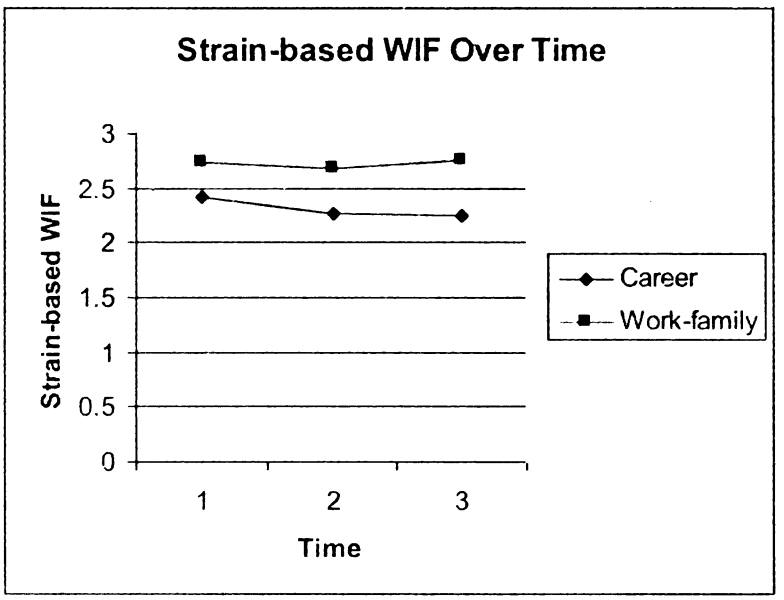

Figure 17. Strain-based Work-interference-with-family Over Time
Notes. WIF = Work-interference-with-family

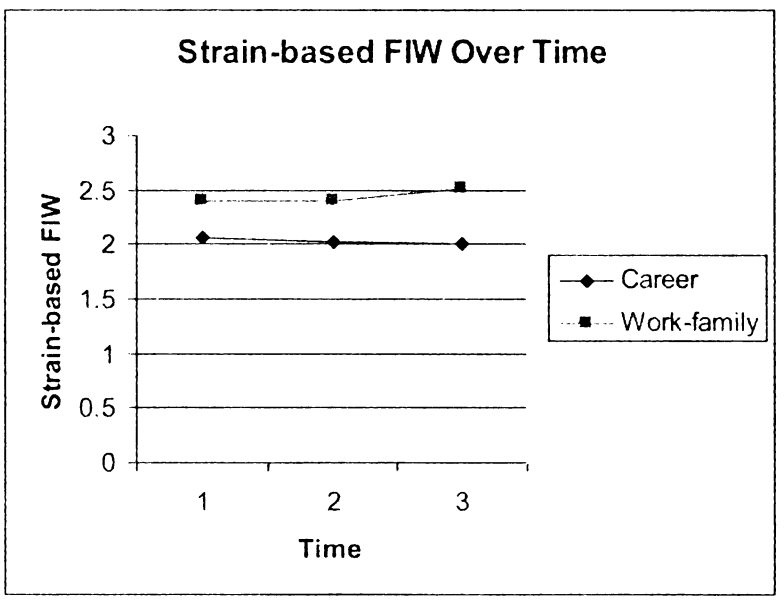

Figure 18. Strain-based Family-interference-with-work Over Time
Notes. FIW = Family-interference-with-work

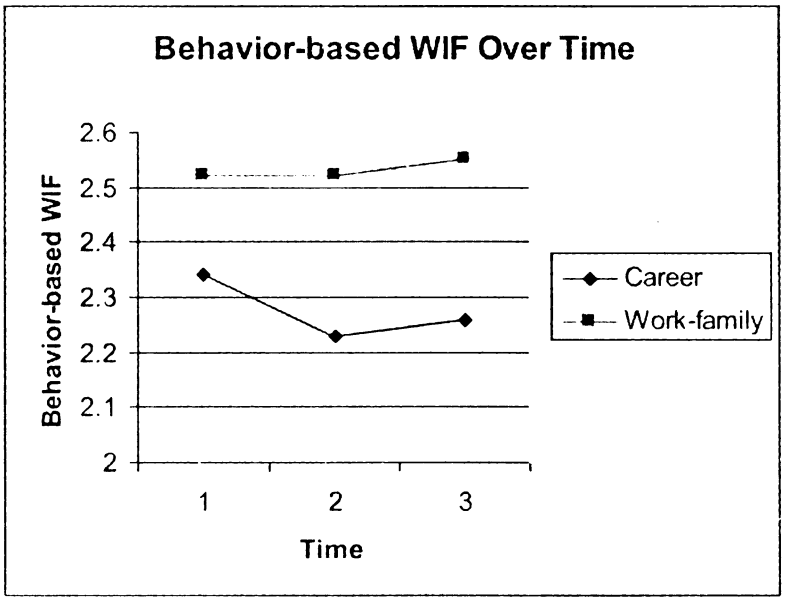

Figure 19. Behavior-based Work-interference-with-family Over Time
Notes. WIF = Work-interference-with-family

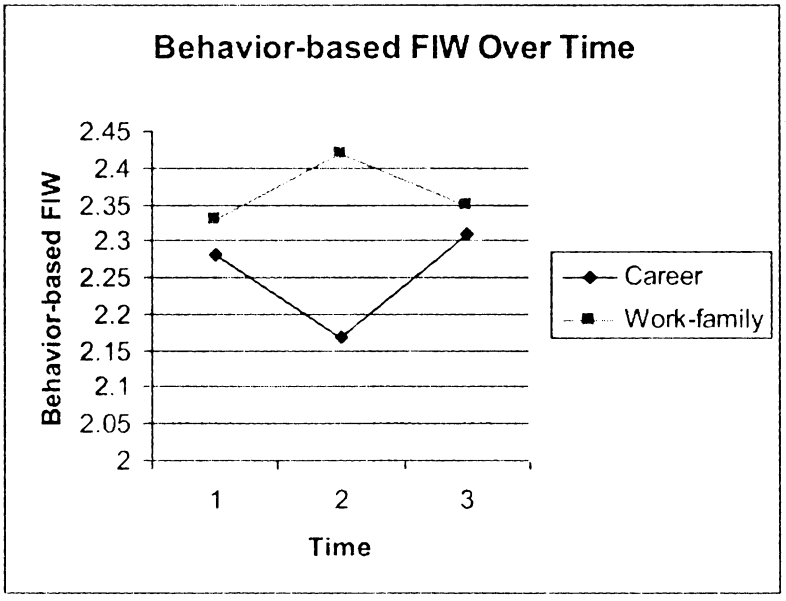

Figure 20. Behavior-based Family-interference-with-work Over Time
Notes. FIW = Family-interference-with-work

Factors Influencing Degree of Change in WFDMSE

Hypotheses 19 through 24 examine the extent to which different variables (gender, age, marital status, relationship status, family role importance, and core self-evaluations) influence the extent of change in WFDMSE over time for participants in the Work-family condition. Time 2 WFDMSE was treated as the dependent variable. Time 1 WFDMSE was entered as an independent variable in the first step of the regression. The variable of interest was entered in the second step of the regression. Further, supplemental analyses tested the interaction between the variable of interest and Time 1 WFDMSE was entered in the third step of the regression (see Table 16). Note that the impact of family role importance could not be examined because the variable is extremely skewed and thus violates one of the assumptions of regression. Therefore, Hypothesis 23 was not examined.

Of the five remaining variables examined, two explain significant incremental variance in the prediction of Time 2 WFDMSE when controlling for Time 1 WFDMSE: relationship status and core self-evaluations. Being in a relationship is associated with smaller increases in WFDMSE than being single (unstandardized beta = -.23, p = .03). This is in the opposite direction of Hypothesis 22. More positive core self-evaluations are associated with greater increases in WFDMSE than lower core self-evaluations (unstandardized beta = .24, p = .02). This is in the predicted direction of Hypothesis 24. Overall, Hypotheses 19 through 23 were rejected while Hypothesis 24 was supported.

As noted above, supplemental analyses investigated an interaction between the variables of interest and Time 1 WFDMSE in the prediction of Time 2 WFDMSE. As

can be seen, there are two significant interactions with WFDMSE: age and marital status. Figures 21 and 22 depict these interactions.

For age, younger participants (one s.d. below the mean) reported higher levels of WFDMSE at Time 2 than older participants (one s.d. above the mean) at all levels of Time 1 WFDMSE. The interaction effect is reflected in the slopes of the two lines in Figure 21. Young participants who are high in Time 1 WFDMSE show the greatest increases in Time 2 WFDMSE. In other words, the experiment is most impactful for these participants.

The interaction between Time 1 WFDMSE and marital status is depicted in Figure 22. Unmarried participants showed higher levels of Time 2 WFDMSE at all levels of Time 1 WFDMSE (as compared to married participants). The significant interaction indicates that unmarried participants with high initial levels of WFDMSE were the most responsive to the intervention (i.e., their WFDMSE showed the greatest increase after the intervention).

Table 16

Moderated Regressions: H19 – H24

Dependent variable = WFDMSE Time 2			
	R^2	$R^2\Delta$	p
Step 1: T1WFDMSE	.72	.72	.00
Step 2: Gender	.72	.00	.62
Step 3: T1WFDMSE x Gender	.73	.01	.12
Step 1: T1WFDMSE	.72	.72	.00
Step 2: Age	.72	.01	.37
Step 3: T1WFDMSE x Age	.75	.03	.02
Step 1: T1WFDMSE	.72	.72	.00
Step 2: Step 1: Marital status	.73	.02	.07
Step 3: T1WFDMSE x Marital status	.76	.03	.02
Step 1: T1WFDMSE	.72	.72	.00
Step 2: Relationship status	.74	.03	.03
Step 3: T1WFDMSE x Relationship status	.75	.01	.29
Step 1: T1WFDSME	.72	.72	.00
Step 2: CSE	.74	.03	.02
Step 3: T1WFDMSE x CSE	.75	.01	.14

Notes. T1WFDMSE = Time 1 Work-family decision-making self-efficacy. RI = Role importance. CSE = Core self-evaluations.

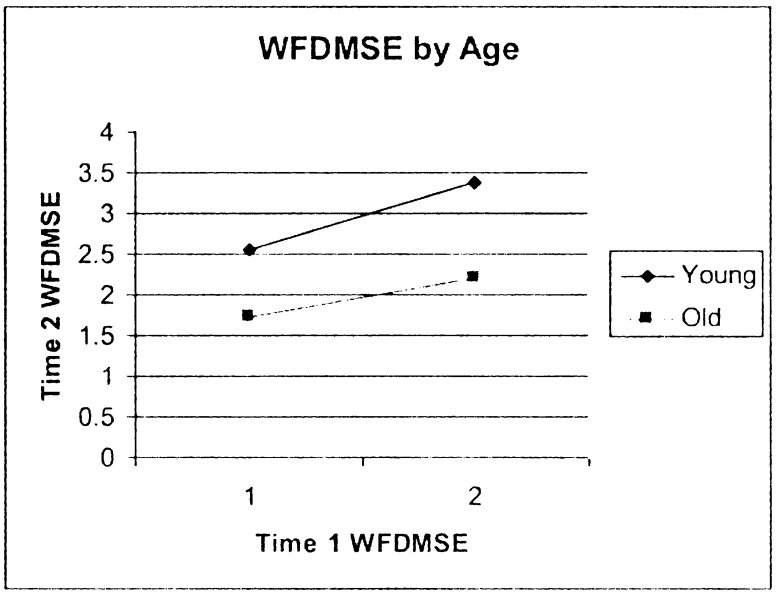

Figure 21. Interaction Between Work-family Decision-making Self-efficacy and Age.

Notes. WFDMSE = Work-family decision-making self-efficacy

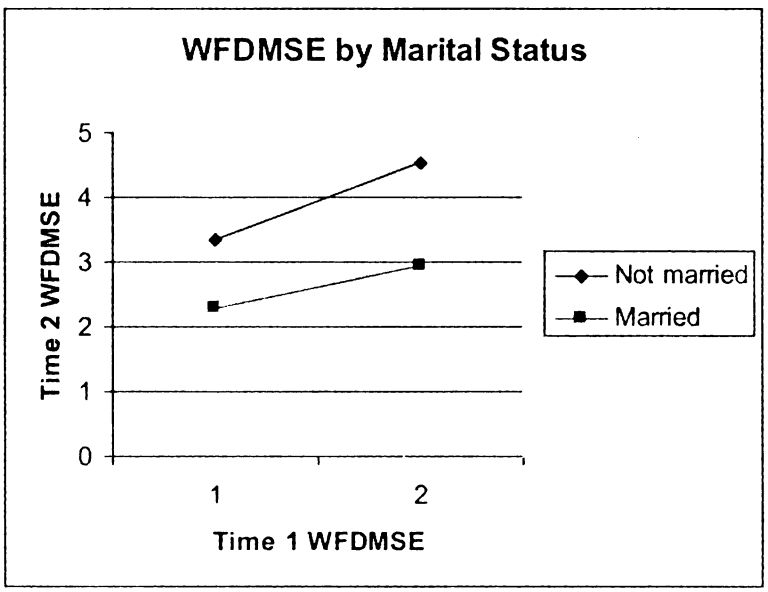

Figure 22. Interaction Between Work-family Decision-making Self-efficacy and Marital Status.
Notes. WFDMSE = Work-family decision-making self-efficacy

Outcomes of AWFC and WFDMSE

Hypotheses 25 through 45 examine the relationship between AWFC, WFDMSE, and outcomes of interest (certainty regarding medical specialty plans, certainty regarding family plans, requests for the electronic newsletter, viewing the website, and gathering information during medical school). Over the time lag, I expected earlier levels of AWFC and WFDMSE to influence later levels of the outcomes of interest. Each outcome of interest is described in turn below.

Certainty of medical specialty plans. Table 17 presents the results of path analyses examining the relationship between AWFC and certainty regarding medical specialty plans over time. An examination of the findings in Table 17 indicates that for two of the six types of AWFC, the path from Time 2 AWFC to Time 3 certainty was

significant: time-based WIF and strain-based WIF. Note, however, that the paths from Time 1 AWFC to Time 2 certainty were not significant for any of the types of AWFC. Therefore, Hypothesis 25 was unsupported, by-and-large. Additionally, because most of the paths across variables were not significant, Hypothesis 26 (which suggests that the direction of causality is *from* AWFC *to* certainty regarding medical specialty) is also not supported.

Table 17

Path Analyses for H25-26: Relationship between Anticipated Work-family Conflict and Certainty Regarding Medical Specialty Over Time

Type of AWFC	N	χ^2	Df	P	CFI	RMSEA	COV. at T1 (*p*)	SE (*p*)
Time-based WIF	91	21.24	6	.00	.97	.17	-.15 (.15)	
							T1MEDCERT → T2TWIF	.05 (.42)
							T1TWIF → T2MEDCERT	.01 (.73)
							T2MEDCERT → T3TWIF	.01 (.87)
							T2TWIF → T3 MEDCERT	-.12 (.03)
Time-based FIW	91	22.6	6	.00	.96	.18	-.23 (.03)	
							T1MEDCERT → T2TFIW	.10 (.19)
							T1TFIW → T2MEDCERT	-.01 (.80)
							T2MEDCERT → T3TFIW	.14 (.09)
							T2TFIW → T3 MEDCERT	-.04 (.50)
Strain-based WIF	91	23.60	6	.00	.97	.18	-.27 (.01)	
							T1MEDCERT → T2SWIF	.05 (.35)
							T1SWIF → T2MEDCERT	-.02 (.65)
							T2MEDCERT → T3SWIF	-.06 (.36)
							T2SWIF → T3 MEDCERT	-.12 (.03)
Strain-based FIW	91	22.51	6	.00	.97	.18	-.16 (.13)	
							T1MEDCERT → T2SFIW	-.01 (.93)
							T1SFIW → T2MEDCERT	-.05 (.17)
							T2MEDCERT → T3SFIW	.00 (.98)
							T2SFIW → T3 MEDCERT	-.08 (.14)
Behavior-based WIF	91	20.30	6	.00	.97	.16	-.02 (.87)	
							T1MEDCERT → T2BWIF	-.09 (.17)
							T1BWIF → T2MEDCERT	-.04 (.29)
							T2MEDCERT → T3BWIF	.01 (.85)
							T2BWIF → T3 MEDCERT	-.02 (.77)
Behavior-based FIW	91	10.62	6	.10	.99	.09	.00 (.99)	
							T1MEDCERT → T2BFIW	.00 (.99)
							T1BFIW→ T2MEDCERT	-.06 (.10)
							T2MEDCERT → T3BFIW	-.10 (.91)
							T2BFIW → T3 MEDCERT	-.02 (.67)

Notes. COV. = Covariance at T1. SE = Standardized estimate (direction of arrows reflects direction of the path). T1 = Time 1. T2 = Time 2. T3 = Time 3. T = time-based, S = strain-based, B = behavior-based, WIF = work-interference-with-family, FIW = family-interference-with-work. MEDCERT = Certainty regarding medical specialty plans.

Table 18 presents the results of a path analysis of the relationship between WFDMSE and certainty regarding medical specialty plans over time. Results indicate that there is a significant correlation between these two variables at Time 1. Additionally, two of the four paths from one variable to the other are significant. One significant path is from T2 WFDMSE to Time 3 certainty. Another significant path is from Time 1 certainty to Time 2 WFDMSE. Overall, then, there is mixed evidence regarding earlier levels of WFDMSE influencing certainty over time. Thus, Hypothesis 27 is partially supported. However, there is no evidence that the paths from WFDMSE to certainty are stronger than the paths from certainty to WFDMSE. Therefore, Hypothesis 28 is not supported.

Table 18
Path Analyses for H27-28: Relationship between Work-family Decision-making Self-efficacy and Certainty Regarding Medical Specialty Over Time

Variable	N	χ^2	Df	P	CFI	RMSEA	COV. at T1 (*p*)	SE (*p*)
WFDMSE	91	17.44	6	.01	.98	.15	.31 (.01)	
				T1MEDCERT → T2WFDMSE				.17 (.01)
				T1WFDMSE → T2MEDCERT				.03 (.51)
				T2MEDCERT → T3WFDMSE				.13 (.06)
				T2WFDMSE → T3MEDCERT				.13 (.02)

Notes. COV. = Covariance at T1. SE = Standardized estimate (direction of arrows reflects direction of the path). MEDCERT = Certainty regarding medical specialty plans. WFDMSE = Work-family decision-making self-efficacy.

Certainty regarding family plans. Table 19 presents the results of path analyses examining the relationship between the six types of AWFC and certainty regarding family plans over time. The paths between AWFC and certainty regarding family plans over time were largely not significant. The two paths that were significant were from Time 1 AWFC to Time 2 family plans certainty. Higher time-based FIW at Time 1 was associated with lower family plans certainty at Time 2. Higher strain-based FIW at Time

1 was associated with lower family plans certainty at Time 2. These findings are in the direction predicted in Hypothesis 29. This data suggests that Time 1 time-based FIW and strain-based FIW may be influencing certainty at Time 2. This is in line with Hypothesis 29. However, paths from Time 2 levels of conflict to Time 3 levels of certainty were not significant. Therefore, Hypothesis 29 is partially supported for time-based WIF and strain-based FIW. Hypothesis 30 predicted that the strength of paths from AWFC to certainty would be stronger then the reverse. Overall, the data presented here does not support this conclusion, although the two significant paths are in the direction predicted.

Table 19

Path Analyses for H29-30: Relationship between Anticipated Work-family Conflict and Certainty Regarding Family Plans Over Time

Type of AWFC	N	χ^2	Df	P	CFI	RMSEA	COV. at T1 (*p*)	SE (*p*)
Time-based WIF	91	18.17	6	.01	.97	.15	.01 (.93)	
					T1FAMCERT → T2TWIF			.01 (.92)
					T1TWIF → T2FAMCERT			-.07 (.15)
					T2FAMCERT → T3TWIF			-.07 (.40)
					T2TWIF → T3 FAMCERT			-.05 (.36)
Time-based FIW	91	28.90	6	.00	.94	.21	.02 (.85)	
					T1FAMCERT → T2TFIW			.08 (.25)
					T1TFIW → T2FAMCERT			-.10 (.04)
					T2FAMCERT → T3TFIW			-.13 (.12)
					T2TFIW → T3 FAMCERT			-.05 (.38)
Strain-based WIF	91	28.10	6	.00	.95	.20	-/13 (.19)	
					T1FAMCERT → T2SWIF			-.03 (.62)
					T1SWIF → T2FAMCERT			-.09 (.08)
					T2FAMCERT → T3SWIF			-.09 (.18)
					T2SWIF → T3 FAMCERT			.00 (.95)
Strain-based FIW	91	28.57	6	.00	.95	.20	-.12 (.25)	
					T1FAMCERT → T2SFIW			-.07 (.20)
					T1SFIW → T2FAMCERT			-.10 (.03)
					T2FAMCERT → T3SFIW			-.10 (.18)
					T2SFIW → T3 FAMCERT			-.03 (.55)
Behavior-based WIF	91	12.06	6	.06	.98	.11	-.15 (.15)	
					T1FAMCERT → T2BWIF			-.07 (.29)
					T1BWIF → T2FAMCERT			-.01 (.88)
					T2FAMCERT → T3BWIF			-.02 (.81)
					T2BWIF → T3 FAMCERT			-.01 (.92)
Behavior-based FIW	91	14.41	6	.03	.98	.13	-.15 (.16)	
					T1FAMCERT → T2BFIW			.02 (.82)
					T1BFIW → T2FAMCERT			-.02 (.76)
					T2FAMCERT → T3BFIW			-.02 (.77)
					T2BFIW → T3 FAMCERT			.00 (.94)

Notes. COV. = Covariance at T1. SE = Standardized estimate (direction of arrows reflects direction of the path). T1 = Time 1. T2 = Time 2. T3 = Time 3. T = time-based, S = strain-based, B = behavior-based, WIF = work-interference-with-family, FIW = family-interference-with-work. FAMCERT = Certainty regarding family plans.

Table 20 presents the results of a path analysis of the relationship between WFDMSE and certainty regarding family plans over time. Results indicate that there is a

significant correlation between these two variables at Time 1. In this analysis, one path across variables is close to reaching significance. There is a positive, non-significant path from Time 1 WFDMSE to Time 2 certainty regarding family plans. This is in line with Hypothesis 31 (given that WFDMSE is seen as influence certainty over time) and Hypothesis 32 (given the relative strengths of paths between the variables) but does not fully support it because the path does not reach the significance level of $p < .05$.

Table 20

Path Analyses for H31-32: Relationship between Work-family Decision-making Self-efficacy and Certainty Regarding Family Plans Over Time

Variable	N	χ^2	Df	P	CFI	RMSEA	COV. at T1 (*p*)	SE (*p*)
WFDMSE	91	27.08	6	.00	.95	.20	.23 (.03)	
						T1FAMCERT → T2WFDMSE		.11 (.09)
						T1WFDMSE→ T2FAMCERT		.10 (.06)
						T2FAMCERT → T3WFDMSE		.04 (.59)
						T2WFDMSE→ T3FAMCERT		.07 (.20)

Notes. COV. = Covariance at T1. SE = Standardized estimate (direction of arrows reflects direction of the path). FAMCERT = Certainty regarding family plans. WFDMSE = Work-family decision-making self-efficacy.

Information-gathering during medical school. Correlations between the six types of AWFC and information-gathering during medical school at Time 1 were examined. Results indicate that none of the six types of AWFC were significantly correlated with this variable. Therefore, Hypothesis 33 is not supported for any of the six types of AWFC.

Requests for electronic newsletter. For each of the six types of anticipated work-family conflict, a path analysis was conducted in order to examine the relationship between AWFC and requests for the electronic newsletter over time (see Figure 4). The results from each of these path models are presented in Table 21. The path from Time 1 AWFC to requests to receive the newsletter was not significant for any of the six types of

AWFC. The paths from requests to receive the newsletter to Time 3 AWFC were also not significant. The results of these analyses indicate that Hypotheses 35 and 36 were not supported.

Table 21
Path Analyses for H35-36: Relationship between Anticipated Work-family Conflict and Requests for the Electronic Newsletter Over Time

Type of AWFC	N	χ^2	Df	P	CFI	RMSEA	SE (p) - Path from T1 to Newsletter	SE (*p*) - Path from Newsletter to T3
Time-based WIF	91	6.92	2	.03	.97	.17	.12 (.26)	.05 (.51)
Time-based FIW	91	15.75	2	.00	.89	.28	.07 (.50)	.01 (.95)
Strain-based WIF	91	14.99	2	.00	.94	.27	-.10 (.35)	.07 (.29)
Strain-based FIW	91	16.33	2	.00	.93	.28	-.04 (.74)	.04 (.61)
Behavior-based WIF	91	3.69	2	.16	.99	.10	-.10 (.34)	.02 (.82)
Behavior-based FIW	91	5.88	2	.05	.97	.15	-.06 (.54)	-.15 (.05)

Notes. SE = Standardized estimate. WIF = Work-interference-with-family. FIW = Family-interference-with-work.

Table 22 presents the results of a path analysis investigating the relationship between WFDMSE and requests to receive the electronic newsletter (see Figure 4). Neither of these paths was significant. Therefore, Hypothesis 37 and 38 were also not supported.

Table 22
Path Analyses for H37-38: Relationship between WFDMSE and Requests for the Electronic Newsletter Over Time

Variable	N	χ^2	Df	P	CFI	RMSEA	SE (p) - Path from T1 WFDMSE to Newsletter	SE (*p*) - Path from Newsletter to T1 WFDMSE
WFDMSE	91	13.92	2	.00	.93	.26	-.02 (.83)	.03 (.65)

Notes. SE = Standardized estimate. WFDMSE = Work-family decision-making self-efficacy.

Viewing the website. Path analyses were conducted to examine the relationship between the six types of AWFC and viewing the website. Table 23 shows that none of the paths from AWFC to viewing the website were significant. Therefore, Hypotheses 38 and 39 were not supported.

Table 23
Path Analyses for H39-40: Relationship between Anticipated Work-family Conflict and Viewing the Website Over Time

Type of AWFC	N	χ^2	Df	P	CFI	RMSEA	SE (*p*) - Path from AWFC to Website	SE (p) - Path from Website to AWFC
Time-based WIF	91	6.81	2	.03	.97	.16	.06 (.56)	.15 (.05)
Time-based FIW	91	15.50	2	.00	.90	.27	.11 (.30)	.08 (.32)
Strain-based WIF	91	15.75	2	.00	.93	.28	-.06 (.58)	.02 (.80)
Strain-based FIW	91	11.71	2	.03	.95	.23	-.09 (.49)	.02 (.79)
Behavior-based WIF	91	.99	2	.61	1.00	.00	.04 (.68)	.13 (.08)
Behavior-based FIW	91	1.33	2	.52	1.00	.00	.00 (.97)	-.03 (.67)

Notes. SE = Standardized estimate. WIF = Work-interference-with-family. FIW = Family-interference-with-work. Website = Viewing the website.

As can be seen in Table 24, the path from WFDMSE to viewing the website was not significant. Therefore, Hypothesis 41 and 42 are also not supported.

Table 24
Path Analyses for H41-42: Relationship between Work-family Decision-making Self-efficacy and Viewing the Website Over Time

Variable	N	χ^2	Df	P	CFI	RMSEA	SE (*p*) - Path from WFDMSE to Website	SE (p) - Path from Website to WFDMSE
WFDMSE	91	11.20	2	.00	.95	.23	-.02 (.82)	.00 (.95)

Notes. SE = Standardized estimate. WFDMSE = Work-family decision-making self-efficacy. RPK = Role-planning knowledge.

Information-gathering during two week lag. Path analyses were conducted to examine the relationship between the six types of AWFC and reports of gathering information during the two-week time lag. Results indicate that none of the paths from AWFC to gathering information were significant (see Table 25). Therefore, Hypotheses 43 and 44 were not supported.

Table 25

Path Analyses for H43-44: Relationship between Anticipated Work-family Conflict and Gathering Information (Over Two Week Time Lag) Over Time

Type of AWFC	N	χ^2	Df	P	CFI	RMSEA	SE (*p*) - Path from AWFC to Gathering information	SE (p) - Path from Gathering Information to AWFC
Time-based WIF	91	9.33	2	.01	.95	.20	-.08 (.47)	.04 (.59)
Time-based FIW	91	14.03	2	.00	.90	.26	.00 (.97)	.02 (.83)
Strain-based WIF	91	14.75	2	.00	.94	.27	-.02 (.87)	.03 (.71)
Strain-based FIW	91	13.13	2	.00	.94	.25	-.10 (.36)	.04 (.62)
Behavior-based WIF	91	1.34	2	.51	1.00	.00	.08 (.45)	.68 (.70)
Behavior-based FIW	91	1.07	2	.59	1.00	.00	.03 (.81)	-.13 (.09)

Notes. SE = Standardized estimate. WIF = Work-interference-with-family. FIW = Family-interference-with-work.

As can be seen in Table 26, the path from WFDMSE to gathering information over the two week time lag was not significant. Therefore, Hypothesis 44 is not supported.

Table 26

Path Analyses for H41: Relationship between Work-family Decision-making Self-efficacy and Gathering Information (Over the Two Week Time Lag) Over Time

Variable	N	χ^2	Df	P	CFI	RMSEA	SE (*p*) - Path from WFDMSE to Gathering Information	SE (p) - Path from Gathering Information to WFDMSE
WFDMSE	91	10.09	2	.01	.95	.21	.07 (.50)	.10 (.15)

Notes. SE = Standardized estimates. WFDMSE = Work-family decision-making self-efficacy.

Mediation of the Relationship between WFDMSE and Outcomes

Hypotheses 45 to 50 examine the whether the six forms of AWFC mediate the relationship between WFDMSE and the outcomes of interest (certainty regarding medical specialty plans, certainty regarding family plans, gathering information during medical school, requests for the electronic newsletter, viewing the website, and gathering information during the two week time-lag). According to Baron and Kenny (1986) there are certain relationships that must be established for mediation to be tested. One critical relationship is that the predictor variable must be significantly related to the proposed mediator. In the path analysis conducted examining the relationship between WFDMSE and AWFC over time (see Table 11), one can see that the path from Time 1 WFDMSE to Time 2 AWFC was not significant for any of the six types of AWFC. Therefore, this prerequisite for mediation is not met and mediation should not be tested. Therefore, Hypotheses 45 – 50 are not supported.

DISCUSSION

The current study examined the construct of anticipated work-family conflict and attempted to influence levels of AWFC through an intervention focused on increasing work-family decision-making self-efficacy. In the following sections, I will highlight and discuss the major findings from the study, including directions for future research and practice that emerge from these findings. I will then discuss some potential limitations to the current research.

Predictors of Anticipated Work-family Conflict

I examined the relationship between several predictor variables and participants' pre-existing levels of anticipated work-family conflict. By-and-large, demographics were

unrelated to AWFC. This is similar to the findings from Friede (2005) who did not identify strong relationships between demographics and the six types of AWFC.

However, in the current study, I did find that women anticipated higher levels of both behavior-based WIF and behavior-based FIW. I expected that women would anticipate higher levels of behavior-based WIF because they were expected to place a stronger importance on the family role and were thus trying to protect it from spillover from the work role. Friede (2005) examined the relationship between gender and AWFC (using the same measure used here) and found that women anticipated less behavior-based WIF and less time-based WIF (in line with the hypotheses from the current study suggesting that women will anticipate less work-interference-with-family). The findings from the current study suggest that women may be particularly sensitive to the potential for behavior-based conflict. Whereas prior research on experiences of actual work-family conflict has found mixed data regarding gender differences in work-family conflict (Eby et al., 2005), this research points to gender differences in anticipated behavior-based conflict.. Future research should continue to examine this issue. In particular, research should investigate the differences between male and female professional students in their expectations regarding future work-family conflict to identify mechanisms for supporting male and female students in their transitions into work and family roles. A deeper understanding of gender-based differences in AWFC will facilitate the custom-tailoring of interventions that will best meet the distinct needs of male and female participants. The findings from the current study indicate that female participants may particularly benefit from interventions that address issues associated

with anticipated behavior-based conflict and teach strategies for dealing with the differing behavioral patterns that are effective for women at work and at home.

The current study also examined the relationship between core self-evaluations and anticipated work-family conflict and found that individuals with higher core self-evaluations anticipated less strain-based and behavior-based conflict in both directions. Friede (2005) found core self-evaluations to be negatively correlated with all six types of AWFC. In general, these findings lend support to the notion that individuals with higher core self-evaluations anticipate less work-family conflict. In both studies, the relationships were particularly strong for strain-based conflict in both directions. Future research should examine whether individuals with higher core self-evaluations actually do experience less strain-based work-family conflict.

Friede and Ryan (2004) describe three possible reasons why core self-evaluations may be linked to experiences of work-family conflict. They note that individuals with higher core self-evaluations may make more effective choices about which work and family roles to enter and how to manage those roles. They may have more positive perceptions of those work and family roles and how they can be balanced (even when controlling for objective features of the work and family environments). Finally, individuals with more positive core self-evaluations may select different coping strategies or more effectively implement the same coping strategies as individuals with more negative core self-evaluations. Given these arguments, individuals with more negative core self-evaluations may benefit from greater support as they transition into work and family roles. This support may take different forms. Individuals with lower core self-evaluations may benefit from support that helps them to perceive their future work and

family environments as more positive and controllable. They may also benefit from additional support that helps them in the process of making decisions about which work and family roles to enter. Additionally, they may benefit from extra support choosing and effectively implementing coping strategies. Future research should address the effectiveness of these different types of interventions for providing supplemental support to individuals with more negative core self-evaluations as they transition into work and family roles.

Furthermore, in the current study, both work and family role-importance were not significantly correlated with any of the six types of AWFC. In general, Friede (2005) did not find strong correlations among these variables either. As mentioned in the Method section of this paper, family role-importance was negatively skewed indicating that the majority of students reported extremely high levels of family role-importance. While this may be a function of social desirability, it is also quite possible that these students genuinely place a high importance on family. Further, although there is more variability with regard to work role-importance within the sample, one might expect medical students to have relatively high levels of work role-importance when compared to individuals who have pursued less demanding careers. In other words, future research should investigate the relationship between work role-importance and AWFC with a broader sample than medical students. However, given the data presented here, it may be a challenge to secure a sample that has significant variability on the family role.

In the current study, I also found that both role-planning knowledge and WFDMSE were significantly negatively correlated with all six types of AWFC. Confidence and knowledge about how to plan for multiple roles and make decisions

about how to balance them are associated with fewer concerns about work-family conflict in the future. However, note that the cross-lagged path analyses did not support the finding that earlier WFDMSE and role-planning knowledge were causing later levels of AWFC. However, this may be due to the short time frame and the fact that the Time 1 relationships among the variables were controlled for, as were participant prior levels on each variable (i.e., autoregressive paths were included). This means that much of the variability in Time 2 and Time 3 AWFC was already accounted for. For example, Time 1 strain-based FIW accounts for over 70% of the variance in Time 2 strain-based FIW. Given these findings, the causal relationship over time between WFDMSE, role-planning knowledge, and AWFC is not clear. Future research that examines changes in WFDMSE, role-planning knowledge, and AWFC over a period of years that spans major life transitions (e.g., entering medical school, starting a residency, making a decision about a job) would be valuable for drawing conclusions regarding the causal relationships between these constructs over time. Future research along these lines would also allow an investigation of whether AWFC and role-planning knowledge are reciprocally related, influencing one another throughout the lifespan.

At this point, it is also important to address the common theme of self-efficacy that underlies a number of predictor variables assessed in the study. Core self-evaluations, CDSE, WFDMSE, and role-planning knowledge may all be driven by an underlying generalized sense of self-efficacy. Judge, Erez, Bono, & Thoresen (2002) specifically discuss that generalized self-efficacy is one of the four components of core self-evaluations. Additionally, Chen, Gully, and Eden (2001) note that generalized self-efficacy is most likely a predictor of more specific types of self-efficacy (i.e., CDSE and

WFDMSE). Furthermore, role-planning knowledge (a self-rated perception of knowledge) may be influenced by generalized self-efficacy given the confidence that underlies beliefs in one's own knowledge (a type of knowledge that has not been examined and evaluated in more traditional ways). Correlations among these constructs range from $r = .46$ (core self-evaluations and CDSE) to $r = .75$ (CDSE and WFDMSE). These correlations are certainly substantial. Nonetheless, factor analyses indicated that the measures are empirically distinguishable (see Method section). In other words, although generalized self-efficacy may strongly influence each of these constructs, they each have their own unique distinguishing features. In general, social-cognitive career theorists have favored more specific measures of self-efficacy that are directly matched to the criterion of interest (Betz & Luzzo, 1996). Given the findings presented here and the social-cognitive tradition, I decided to treat these scales as distinct despite their high intercorrelations. In the next section, I will describe how this choice may have influenced the findings in the current study. In the current section (which focuses on the predictors of AWFC), it suffices to say that AWFC is most likely influenced by generalized self-efficacy. However, it is not surprising that self-efficacy constructs more specifically tied to career and work-family notions are strongly related to AWFC. Similar to arguments provided above that suggest that individuals with low core self-evaluations might benefit from supplemental training due to their higher levels of AWFC, the findings presented here suggest that individuals with low generalized self-efficacy (a component of core self-evaluations) may benefit from supplemental training that helps them to avoid the higher levels of work-family conflict that they tend to anticipate.

Effects of Intervention

The next portion of the study examined the effects of the Career and Work-family intervention on WFDMSE and AWFC. Interestingly, there were pre-existing differences in WFDMSE across the two conditions, even though participants were randomly assigned to condition. Therefore, Time 1 WFDMSE was controlled in my examination of the effects of the interventions on Time 2 WFDMSE. As noted above, the Work-family intervention did not significantly increase WFDMSE more so than the Career intervention. The desired effect of increasing WFDMSE was achieved in *both* groups and this effect persisted over the two-week time lag. In other words, it is not that the Work-family intervention was ineffective in increasing WFDMSE, it is that the Career intervention was *also* effective in increasing WFMDSE. Both conditions were designed to be very similar (the basic wording of the scripts is almost identical and only differences are related to work-family versus career decision-making). Both conditions included Bandura's mechanisms for increasing self-efficacy.

Therefore, one possible interpretation of the findings is that interventions focusing on self-efficacy are likely to increase WFDMSE regardless of the specific focus of the intervention. In other words, participant overall level of efficacy may matter more so than their specific level of efficacy towards a particular type of decision-making. This would suggest that it is not critical to incorporate specific interventions focusing on WFDMSE into the career counseling provided to professional students.

An alternative explanation is that WFDMSE can be conceptualized as a specific type of CDSE (i.e., career choices associated with balancing work and family). Indeed, the Work-family condition did focus on making specialty choices (i.e., career choices) based on information about work and family. This interpretation would suggest that it is

not necessarily generalized self-efficacy that is critical, rather it is *career*-related decision-making self-efficacy that is critical. In other words, because the two interventions were both focused on career decision-making, they were both effective in influencing WFDMSE. In this case, the developmental opportunities provided to professional students should still focus on CDSE (and may or may not include a work-family component) and generalized self-efficacy may not be sufficient.

A third possibility is that participants in the career condition chose to think about work-family balance during the intervention as part of the "performance accomplishments" component of increasing self-efficacy (e.g., when asked to write about the aspects of their career that were most important to them). In other words, although the Career intervention did not explicitly mention work-family balance, students might have chosen to consider issues of work-family balance when addressing issues of career choice and the medical specialty that they plan to go into. Participants' responses during the intervention were available for examination. One question asked participants to identify what features of their medical specialty were most important to them. 50% of participants in the Career condition mentioned a characteristic related to work-family balance as a feature of their specialty that is most important to them (e.g., ability to work less than full-time, time for family, ability to leave work at the office to spend time with family). This suggests that many participants in the Career condition were thinking about work-family issues, even though they were not explicitly told to do so. This may explain, in part, why participants in the Career condition also showed increases in WFDMSE. In other words, the psychological impact of the two conditions was similar because participants in both groups were thinking about work-family issues. Future research

could include a control condition that explicitly discusses aspects of specialty choice that are less directly associated with issues of work-family balance (e.g., working with one's hands). This would help to distinguish between alternative explanations for why WFDMSE increased in both conditions in the current study.

It was also expected that participants in the Work-family condition would have lower levels of AWFC than participants in the Career condition after the intervention. Contrary to expectations, participants in the Work-family condition anticipated higher strain-based FIW at Time 2 and higher strain-based WIF and FIW at Time 3 than those in the Career condition. Perhaps more interesting is an examination of the patterns of change within condition across the three time points. In both conditions, time-based WIF decreased and this decrease persisted over the two week time lag. Additionally, time-based WIF decreased after the intervention for both conditions but this decrease did not persist over the two week lag. In the Career condition, participants reported decreased strain-based WIF and this persisted over the time lag. In the Work-family condition, no changes in strain-based WIF were evident. For both conditions, there was no significant change in strain-based FIW or behavior-based WIF or FIW.

These findings suggest that the intervention was effective in reducing AWFC. In particular, time-based conflict was the type of anticipated work-family conflict most strongly affected by the interventions. One explanation for these findings is that time-based conflict is perceived as the most controllable form of conflict (i.e., students can use their decision-making skills to influence their levels of time-based AWFC). Time-based conflict is a particularly concrete type of conflict that participants can readily understand. Additionally, the types of decisions that one would need to make in order to reduce time-

based conflict are straight-forward. On the other hand, strain-based and behavior-based conflict may seem more abstract to individuals. The types of decisions that would need to be made in order to avoid these types of conflict may also be less clear. Enhancing participant self-efficacy may only influence their anticipation of conflict that they perceive as under their control.

Future research could empirically assess the extent to which the three types of conflicts are perceived as controllable. Furthermore, it would be valuable to investigate the extent to which these three types of conflict are *actually* controllable. Interventions should be focused on increasing participant confidence and capabilities for making decisions that have the possibility of helping them to avoid work-family conflict. Interventions that encourage participants to try to control things that are actually out of their control may be detrimental to their well-being. This is substantiated by research that suggests that active attempts to problem-solve may be ineffective in less controllable situations (Miller & Kirsch, 1987; Mak & Mueller, 2000; Parkes, 1990). Therefore, in the creation of interventions, researchers should be cautious about creating illusory control in situations where individuals have little or no control. Note, however, that there is also evidence that mildly exaggerated perceptions of control may actually benefit well-being despite their inaccuracy (see Taylor & Brown, 1994; Taylor, Kemeny, Reed, Bower, & Gruenewald, 2000, for a discussion of this issue). Given these findings, researchers should carefully investigate the positive and negative outcomes associated with enhancing participant perceptions of control over work-family conflict in cases where control does and does not exist.

Factors Influencing the Degree of Change in WFDMSE

In addition to examining the impact of the interventions on WFDMSE and AWFC, I examined the factors that influenced the degree of change in WFDMSE in the Work-family condition. With regard to demographics, only one was related to the degree of change in WFDMSE. Individuals in a relationship reported greater increases in WFDMSE than single individuals. This was in line with our hypothesis which suggested that individuals in relationships would be more concerned about learning how to make decisions about balancing work and family, and therefore would benefit more from the intervention. Note, however, that I did not directly examine the psychological mechanisms that may have caused this effect (e.g., desire to learn more about how to balance work and family). There were no pre-existing differences in anticipated work-family conflict among individuals in relationships and those not in relationships. Therefore, if future researchers are interested in examining how different individuals react to the types of interventions conducted in this study, it is important to also empirically investigate *why* such differences among individuals emerge, rather than assuming the causes of the differences. Importantly, as research in this area progresses, customizing interventions to the needs of specific demographic groups may become a possibility and in-depth research would be necessary as part of the customization process.

Furthermore, as predicted, individuals with more positive core self-evaluations showed greater increases in WFDMSE after the intervention. It was hypothesized that these participants would have greater confidence in their ability to implement the material provided in the intervention and to influence their future work-family balance. This finding may indicate that having high generalized self-efficacy (a component of the core self-evaluations construct) increases sensitivity to more specific self-efficacy training.

As noted previously, there is expected to be a dynamic relationship between generalized and specific self-efficacy (Chen et al., 2001). The implications of this finding are therefore complex. Perhaps self-efficacy-based interventions should include a component focused on enhancing generalized self-efficacy prior to focusing on more specific types of self-efficacy. There is evidence that high generalized self-efficacy primes individuals for motivation and learning during training (Salas & Cannon-Bowers, 2001). On the other hand, perhaps it is important to focus interventions on specific types of self-efficacy and the confidence that participants gain will spillover to enhance a more generalized sense of self-efficacy. Research conducted by Schwoerer, May, Hollensbe, and Mencl (2005) does provide evidence that specific self-efficacy enhanced through training can spillover to enhance generalized self-efficacy. Future research can certainly investigate this issue and, similar to future research on effects of being in a relationship, may identify opportunities for customizing interventions for participants with low and high levels of initial core self-evaluations.

Additionally, two interactions between demographics and Time 1 WFDMSE were identified (predicting Time 2 WFDMSE) through supplemental analyses. Young participants and unmarried participants who were high in Time 1 WFDMSE showed the greatest increases in Time 2 WFDMSE. These findings run counter to the argument that individuals for whom work-family decisions are more quickly approaching will gain the most from the intervention. Young participants and unmarried participants are farther from making work-family decisions. This effect only occurred for young and unmarried participants who were high in initial levels of WFDMSE. One potential explanation is that these participants may have naïve overconfidence in their ability to effectively make

decisions about balancing work and family. In other words, these participants believe that they will be able to make effective decisions about balancing work and family and they believed that strategies suggested in the intervention would help them to do so (more so than other participants who may have a more realistic appraisal of the benefits of the intervention). Another possible explanation is that young/unmarried participants with high initial WFDMSE may feel the most freedom and confidence to successfully implement the suggestions provided in the intervention whereas other participants are more constrained by the choices that they have already made or their lack of confidence. Future research should see if these unhypothesized interactions emerge in replications of the current study and, if so, investigate the psychological mechanisms that are driving these relationships.

Outcomes of Anticipated Work-family Conflict

For the most part, there was little evidence of causality over time between levels of AWFC and the outcomes that were assessed. AWFC was not associated with information-gathering before medical school or during the two week time-lag. Additionally, AWFC was not associated with requests for the electronic newsletter or participant viewing of the website. It is important to consider why these relationships did not emerge as predicted.

One possibility is that the interventions examined in this study affect participants' perceptions and beliefs, but these cognitive changes do not impact behavioral outcomes. Behavioral choices may be driven by other factors (such as interests, values, or demographics). Note that other individual characteristics (e.g., gender, relationship status, work importance, and family importance) were related to these outcomes.

Alternatively, it may be that the interventions utilized in the current study were not strong enough to impact behavior but that behavior could potentially be affected through improving the design and content of the interventions. The limitations associated with intervention design are discussed in greater detail below.

It may also be that the outcomes assessed were not appropriate for the given study. The theme relating these outcomes is the notion that individuals want to gather more information about balancing work and family. Perhaps AWFC is not related to a desire to gather more information in the short term but may be related to more long-term behavioral outcomes that were not assessed in the current study (e.g., choice of medical specialty, choice of residency program). Cohort research studies that examine the relationship between AWFC and the behaviors and choices of professional students over time (and include a broader range of behavioral outcomes) will be an important addition to this stream of research.

With regard to the relationship between AWFC and certainty regarding medical specialty plans, the path from Time 2 time-based WIF to Time 3 certainty was significant and the path from Time 2 strain-based WIF to Time 3 certainty was significant. These findings are in line with hypotheses. However, the majority of hypothesized paths were not significant.

For certainty regarding family plans, the path from Time 1 time-based FIW to Time 2 certainty was significant. The path from Time 1 strain-based FIW was also significantly related to Time 2 certainty. Again, these paths are in line with hypotheses but the majority of hypothesized paths were not significant. One possible explanation for this finding is high stability of these constructs over the time period examined. In other

words, to the extent that there is little change in levels of a construct, it is difficult to predict change in that construct. Re-examining the relationship between these constructs over a longer time-period would shed light onto the dynamic relationship between anticipated conflict and certainty that is predicted by the social-cognitive theory of career development (Lent et al., 1994).

It is interesting to note the nature of the paths that did emerge as significant. For certainty regarding medical specialty plans, the two types of AWFC that yielded significant paths were both work-interference-with-family (time- and strain-based). For certainty regarding family plans, the two types of AWFC that yielded significant paths were both family-interference-with-work (time-based and strain-based). In other words, changes in beliefs about future work-interfering-with-family may influence people to adjust their certainty about their work whereas changes in beliefs about future family-interfering-with-work may influence people to adjust their certainty about their family plans. This parallels existing research which shows that stressors in the work domain primarily impact work-interference-with-family whereas stressors in the family domain primarily impact family-interference-with-work (e.g., Frone, Yardley, Markel, 1997). The nature of cross-domain spillover regarding AWFC and certainty merits future research. In particular, longitudinal, non-experimental research that examines the relationship between stressors from the work and family domains, conflict perceived as spilling-over from the work and family domains, and certainty regarding plans in the work and family domains would be extremely valuable to shed further light on these findings.

Potential Methodological Limitations

In addition to the suggestions for future research provided above, it is important to address the potential methodological limitations of the current study and propose improvements for future research. One main limitation of the study is the sample size. This limitation is most evident in the fact that path analyses had to be used instead of structural equation modeling. Measurement error modeled in the path analyses may have obscured interesting and important relationships between latent constructs. Future research should focus on attaining a larger sample size in order to facilitate statistical analysis.

Another potential limitation is the fact that the data was almost entirely self-report. Relationships across self-reported data may be inflated (Podsakoff et al., 2003). This concern is mitigated to some extent by findings in the current study that show differential relationships among self-reported variables and differentiation between similar constructs. Additionally, this concern is mitigated by the fact that data was collected over different time points and many relationships examined were among variables assessed at different time points. To further reduce concerns about common rater effects, additional raters could provide insight into some of the constructs assessed. For example, career counselors could provide data regarding student certainty regarding professional plans. Partners could provide data regarding levels of AWFC and certainty regarding family plans.

An additional concern is that participants were influenced by social desirability to report increased WFDMSE and decreased AWFC. The fact that WFDMSE and AWFC were assessed multiple times may have suggested to participants in both conditions that this was the focus of the current study. Note, however, that some of the changes that

emerged after the intervention persisted over the two week time-lag. While it is possible that the participants were influenced by social desirability at all time points, one might expect the social desirability effects to decrease over the time lag (farther in time from the intervention). If possible, future research that more effectively hides the intention of the research (perhaps by including additional, "distractor" constructs) would be beneficial. Additionally, framing the intervention as part of the career training provided by the medical school and making it appear as though the assessments were unrelated to the intervention might decrease socially-desirable responding. In general, the methodology of the study would be improved if a greater time-lag between Time 1, the intervention, Time 2, and Time 3 were possible.

Another methodological concern in this study is the design of the interventions themselves. They were both extremely brief, administered over the internet, and did not include opportunities for group discussions, questions, or feedback. There is meta-analytic evidence that key features of the intervention designs for the current study have been associated with effective training in past research (e.g., lectures, behavioral-modeling, practice, web-based administration; Burke & Day, 1986 Sitzmann, Kraiger, Stewart & Wisher, 2006). However, Campbell (1988) and Tannenbaum and Yukl (1992) both noted that it is most critical that the method of training match the objective of the training and participant characteristics. The current interventions were designed based on well-established mechanisms of enhancing self-efficacy (Bandura & Adams, 1977). However, future research should address whether training focused on work-family decision-making self-efficacy and anticipated work-family conflict should incorporate specific design features. Additionally, understanding the particular training needs of

medical students (and sub-populations within that group, such as female medical students) will enhance the alignment between the design of the training and the needs of participants. To the extent that the training content and design can be better matched to the objectives of the training and the needs of the participants, it may have a much greater impact.

Furthermore, a related concern is the impact of the training over longer time periods and outside of the laboratory. Training effects that were found to persist over a two-week time-lag in the current study may disappear over a longer time-lag. Additionally, the lack of impact on behavioral outcomes may suggest a lack of transfer of the training to real-world decision-making. For intervention effects to persist over time and transfer outside of the training environment, the design of the intervention may need to be altered. Again, the alignment between the design and content of the training and the situations in which it is intended to be implemented is critical. The transfer of training literature suggests that intervention effects are more likely to be maintained outside of the training environment when the training environment matches the application environment, participants learn the underlying reasoning behind the information imparted in training, they see the implications of the training for a variety of situations that they may later face, practice is distributed over time, and feedback is provided (Baldwin & Ford, 1988). Certainly, the content and design of the current interventions should be refined so that it more closely meets the conditions associated with high transfer of training.

CONCLUSIONS

The findings presented here add to my correlational research on the antecedents and consequences of AWFC. Additionally, this research contributes to existing research being conducted on work-family conflict by emphasizing the importance of considering the thoughts, feelings, and decisions of professional students regarding balancing work and family prior to entering those roles. Further, this research contributes to the existing research being conducted on career decision-making by addressing the role of family in the career decision-making process. Future research should build upon the findings presented here to understand the process by which professional students transition into work and family roles. This research will be critical for designing interventions that help professional students make decisions that will allow them to be successful and happy in their multiple life roles.

APPENDICES

Appendix A

Email Invitation from Dean to Participate in Study

Dear COM/CHM medical students,

I am writing to invite you to participate in an important research study. This study will allow us a greater understanding of how our medical students select and transition into their medical specialties and how we can best support you in this process. We will receive a detailed report based on the findings from this study. However, we will not receive your individual responses.

This is a two-part research study that will take approximately 40 minutes of your time total. **Everyone who completes the study will receive a $10 check in the mail.**

Again, your participation is greatly appreciated and provides us with data on an important topic. Thank you in advance for your participation.

Sincerely,

<Insert Dean name>.

Study information:

Study name: Professional Development for Medical Students

Study details: The study has two parts. The first part takes approximately 30 minutes and will involve watching brief online presentations and completing a web-based survey. The second part of the study will take place two weeks after the first part. You will receive an email asking you to take another web-based survey that will take approximately 10 minutes to complete. All responses will remain confidential. This research is completely voluntary and there is no penalty for those who do not participate.

Compensation: All participants who complete both parts of the study will receive a $10 check in the mail. Those who only complete the first part of the study will receive a $5 check in the mail.

To participate visit: psychology.msu.edu/balance (Note: there's no "www" in the URL)
Enter Access ID: medicine

Contact: Dr. Ann Marie Ryan (ryanan@msu.edu) with questions.

Your time and energy are greatly appreciated. They will help your medical school understand your needs as well as contribute to an important research project.

Appendix B
Consent Form Time 1

Medical Student Professional Development

Please read the information below:

We will be asking you to respond to a series of questions about how you think about and plan for your future medical career. You will be asked to view two brief presentations that are focused on your professional career and answer questions based on what you learn in the presentations. We are also asking you to respond to some commonly used personality and demographic questions that will help us interpret the meaning of your responses to the questionnaire.

This is a two-part research study. We expect that it will take about 30 minutes for you to complete the first part of the study. In two weeks, you will be asked to fill out a second short survey that will take approximately 10 minutes to complete. Participants who complete both parts of the research study will receive a $10 check in the mail. Participants who only complete the first part of the research study will receive a $5 check in the mail.

There are no foreseeable risks associated with participating in this study. Your name and information will remain confidential. Your privacy will be protected to the maximum extent allowable by law. The data will be saved for at least five years after it is collected and will only be accessible by the primary investigator and one graduate student. By typing your name below you indicate that you are free to refuse to participate in this project or any part of this project. You may refuse to participate in certain procedures or answer certain questions. Participation is completely voluntary. You may choose not to participate at all and may discontinue your participation at any time without penalty or loss of benefits.

If you have any questions or concerns about your participation in this project, you can reach Ann Marie Ryan by phone: (517)353-8855, fax: (517)353-4873, email: ryanan@msu.edu, or regular mail: 333 Psychology Building, East Lansing, MI 48824. If you have questions or concerns regarding your rights as a study participant, or are dissatisfied at any time with any aspect of this study, you may contact - anonymously if you wish - Peter Vasilenko, Ph.D. Chair of the Human Research Protection Program by phone: (517)355-2180, fax: (517)432-4503, email: irb@msu.edu, or regular mail: 202 Olds Hall, East Lansing, MI 48824.

Please mark the box that says "I agree to give my consent to participate" if you agree to participate in this study. Mark "I do not want to participate" if you do not agree to participate in this study. If you agree to participate, enter your name below and you will be taken to the survey once this step is completed.

☐ I agree to give my consent to participate

☐ I do not want to participate
First name _____ Middle initial ____ Last name _____

Appendix C
Consent Form Time 3

Medical Student Professional Development

Please read the information below:

We will be asking you to respond to a series of questions about how you think about and plan for your future medical career. You may be asked to view brief presentations about career decision-making and answer questions based on what you learn in the presentations.

This is a research study. We expect that it will take about 10 minutes for you to complete this study. Because you already completed the first part of the study two weeks ago, you will receive a $10 check in the mail if you complete this second part of the study. You will still receive a $5 check in the mail for your participation in the first part of the study if you choose not to complete this part. There are no foreseeable risks associated with participating in this study. Your name and information will remain confidential. Your privacy will be protected to the maximum extent allowable by law. The data will be saved for at least five years after it is collected and will only be accessible by the primary investigator and one graduate student. By typing your name below you indicate that you are free to refuse to participate in this project or any part of this project. You may refuse to participate in certain procedures or answer certain questions. Participation is completely voluntary. You may choose not to participate at all and may discontinue your participation at any time without penalty or loss of benefits.

If you have any questions or concerns about your participation in this project, you can reach Ann Marie Ryan by phone: (517)353-8855, fax: (517)353-4873, email: ryanan@msu.edu, or regular mail: 333 Psychology Building, East Lansing, MI 48824. If you have questions or concerns regarding your rights as a study participant, or are dissatisfied at any time with any aspect of this study, you may contact - anonymously if you wish - Peter Vasilenko, Ph.D. Chair of the Human Research Protection Program by phone: (517)355-2180, fax: (517)432-4503, email: irb@msu.edu, or regular mail: 202 Olds Hall, East Lansing, MI 48824.

Please mark the box that says "I agree to give my consent to participate" if you agree to participate in this study. Mark "I do not want to participate" if you do not agree to participate in this study. If you agree to participate, enter your name below and you will be taken to the survey once this step is completed.

☐ I agree to give my consent to participate
☐ I do not want to participate

First name _____ Middle initial ____ Last name _____

Appendix D

Email invitation to participate in Time 3

Hello,

Thank you for your participation in the research study, "Medical Student Professional Development." We greatly appreciate your time and effort.

When you completed the first data collection, you agreed to be re-contacted to complete a follow-up survey. If you complete the follow-up survey, you will receive a check for $10 in the mail. The survey should take approximately 10 to 15 minutes.

To participate visit: psychology.msu.edu/balance (note: no "www" in the URL)
Enter Access ID: doctor

Please contact Ann Marie Ryan at ryanan@msu.edu with any questions.

Thank you very much

Appendix E
Debriefing Form

Thank you for your participation in this study. The purpose of this study was to reduce the anticipated work-family conflict experienced by medical students. To do this, we designed a web-based intervention that consisted of series of Powerpoint presentations focused on building self-confidence in your ability to make decisions that will allow you to successfully balance your medical career with your family life. Because we wanted to examine the effectiveness of this intervention, we used an experimental study with three different conditions. Some participants participated in the intervention focused on work-family decision-making. Some participants participated in the intervention focused on career decision-making (with no discussion of work-family issues). Some participants did not participate in an intervention at all. You were randomly assigned to one of these three experimental conditions. There are no foreseeable risks associated with participation in any of these conditions. Participants who completed both parts of the survey received a $10 check in the mail.

Additionally, for those of you who were interested in receiving additional information, we sent you an email with additional information. That email included a link to a website. We tracked your time and actions on the website for research purposes. We were interested in the extent to which medical students were interested in obtaining more information about work-family issues. This information will be linked with your survey data and then all identifying information will be removed from the data.

We believe that the intervention focused on the work-family balance of medical students may be helpful to students who are thinking about their future work and family plans. If you would like the opportunity to view the work-family intervention, you may do so at your convenience.

Visit psychology.msu.edu/balance (Note: there's no "www" in the URL)
Access ID: debrief

If you have any questions or concerns about your participation in this project, you can reach Ann Marie Ryan by phone: (517)353-8855, fax: (517)353-4873, email: ryanan@msu.edu, or regular mail: 333 Psychology Building, East Lansing, MI 48824. If you have questions or concerns regarding your rights as a study participant, or are dissatisfied at any time with any aspect of this study, you may contact - anonymously if you wish - Peter Vasilenko, Ph.D. Chair of the Human Research Protection Program by phone: (517)355-2180, fax: (517)432-4503, email: irb@msu.edu, or regular mail: 202 Olds Hall, East Lansing, MI 48824.

Appendix F
Electronic Newsletter Email

Work-Family Balance
A Newsletter for Medical Students

Overview:
This email provides you with an overview of some of the latest research and information that can help medical students think about choosing a medical specialty and balancing work and family.

To get more information about the topics provided below, click on the link below.
http://psychology.msu.edu/Balance/TheBIDLink.asp?BID=93
If you are not automatically directed to the website, copy and paste the link into your browser.

Below are brief summaries of the topics that you can read about on the website.

9 Strategies for Balancing Work and Family Research has identified nine strategies for achieving better balance of work and family that you can use as a doctor. You can read about those nine strategies in this article.

3 Characteristics of Residency Programs to Consider This article summarizes three important characteristics of residency programs to consider when deciding which program to enter. Read this article to learn about the importance of considering program stability, support, and institutional climate in your decision-making process.

Work-Family Demands of Different Specialties Medical specialties differ in the work-family challenges that they pose for doctors. A recent study asked practicing doctors to rate the work-family demands of different medical specialties. The results of that study are reported in this article.

Average yearly earnings for doctors
The average salary of doctors differs by medical specialty. This article summarizes the average salaries of doctors in different specialties, as provided by the Association of American Medical Colleges.

Again, to read these different articles, click on the following link:
http://psychology.msu.edu/Balance/TheBIDLink.asp?BID=93
If you are not automatically directed to the website, copy and paste the link into your browser.

Appendix G

Powerpoint Slides for Career Condition Including Tasks

INTRODUCTION AND TUTORIAL 1

Welcome to "Career Planning: An Online Tutorial for Medical Students"

Please make sure that the volume on your computer is turned up so that you can hear the dialogue that accompanies these slides before proceeding. If you have trouble running the slide show or hearing the volume, please call (517) 432-7069. Someone will be in touch with you shortly. Do not proceed if you cannot hear the dialogue.

The following presentations are focused on an issue that is critical to many medical students: how to plan for your medical career. When we talk about career planning, we're talking about finding a career that you are happy with – including your choice of medical specialty, work setting, and specific job. We'll be focusing on your choice of medical specialty and your plans for entering that specialty. Your choice of medical specialty will to be a major component of your future life. There is evidence that when people enter a medical specialty that doesn't match their unique preferences, they experience dissatisfaction and stress. However, there are steps that you can take now, in medical school, that may help you to decide upon and prepare for entering your medical specialty. This online tutorial will help you with that process. You'll be thinking about your ideal medical specialty and learning about different aspects of making a decision about which specialty to enter. You'll be asked to think about different aspects of medical specialties and how those will affect your level of satisfaction with the specialty you decide upon. "I am Dr. Ann Marie Ryan, a professor of Psychology with an expertise in career planning. I'll be leading this online tutorial.

In the following tutorials, I want to provide you with some important information on strategies that you can use to help you prepare for choosing and entering your medical specialty. I hope to help you find and enter a medical specialty that matches your own personal goals, desires, and values. There will be three short tutorials. After each tutorial, you will complete a task that will help you to think about the information provided in the tutorial. Although each tutorial is brief, we are hoping to help you think about how you will select a medical specialty that works for you. Remember that this tutorial is the starting point for thinking about these issues, and that you aren't expected to figure everything out in one day. Even if you have already decided on a medical specialty, this presentation can help you think about that choice in new ways. I hope to show you that <u>you do</u> have the ability to make well-informed, well-thought-out decisions and that there are techniques, tools, and resources available to help you. The three tutorials are on the following steps that you can take to prepare you for selecting a medical specialty that's right for you:

Step 1: Self-appraisal: Understanding and assessing your personal ideal medical specialty. Step 2: Gathering information: Using resources and strategies to gather information about the characteristics of different medical specialties. Step 3: specialty selection: Identifying a medical specialty that fits with your unique preferences. Please watch each presentation carefully and complete the tasks provided. Each tutorial will begin with a discussion of one of the steps I just described . Then, you'll hear an example of a medical student who has completed this step. Then, I'll talk a little more about that step. After that, you'll complete a brief task to help you think about the tutorial. After you complete the task, you can click on the next tutorial. Thank you.

Let's begin Tutorial 1: Self-appraisal.
The first step in preparing to select a medical specialty is called "self appraisal".

Self-appraisal refers to assessing yourself to understand your own ideal medical specialty. This means taking the time to think about and analyze your preferred job tasks, work environment, and job rewards and challenges. Different individuals, based on their own unique preferences, will look for different things in a medical specialty. By understanding your unique preferences, you can begin to understand what your ideal medical specialty looks like.

Existing research can guide your thinking about finding a specialty that suits your preferences. Researchers have found three major ways in which medical specialties differ: job tasks, work environment, and rewards and challenges. You can appraise your own preferences for a medical specialty based on these characteristics. With regard to job tasks, research suggests that individuals who have the opportunity to perform their preferred tasks on-the-job are more satisfied. Job tasks include anything you actually "do" on the job. Including performing complicated procedures, talking with patients, or supervising others. Additionally, when individuals work in an environment that matches their preferences, they find their jobs more fulfilling. For example, characteristics of the work environment include whether the environment is faced-paced, competitive, or noisy. Finally, jobs offer different rewards and pose different challenges for doctors. Research also shows that when the rewards of one's specialty matches what individuals desire and has challenges that are tolerable, they will tend to be happier on the job. Examples of rewards include a high salary or the opportunity to help others, while a challenge would be having to face losing patients.

The first step in the self-appraisal process is to appraise your preferences. Here, we focus on the example of job rewards. Do you want to earn a high salary? Do you want to help the less fortunate? Do you want to build relationships with your colleagues? Do you want job security? Different individuals will have different preferences regarding the rewards of the job that they want. The second step is to prioritize those preferences. Of course, in an ideal world, you would get everything you wanted in terms of job rewards.

Since that's not realistic, it's critical to pick just a few characteristics that are your top priorities. After you identify all of your preferences, select a few preferences that are the most important to you. You will use these preferences when you think about which specialty matches your preferences.

There are several tools that can assist you in the self-appraisal process.
You could record and track your preferences in a journal and evaluate their importance to you. You could fill out questionnaires or surveys that assess your preferences. These surveys are often available online or through career services and can be scored to provide feedback to you. Additionally, you can have a conversation with a career counselor in which you discuss your preferences and identify your priorities. He or she may be able to ask thought-provoking questions that help you identify your preferences.
Finally, there may be friends or family members that you can discuss these issues with. Since they know you best, they may be able to help you think through what you want and what is really important to you. Now, I'd like you to listen to a medical student talk about her own self-appraisal process and how this influenced what she decided to look for in a medical specialty. Then, I'll describe a brief task that will help you to begin your own self-appraisal process.

Hi, my name is Stephanie, and I finished medical school in May of 2006. When I was deciding what medical specialty to enter, I decided to go through the self-appraisal process. Basically, I sat down at my computer and just started writing about my ideal job. I wrote down all the things I could think of – what I wanted to do, what mattered to me most, what negatives I could tolerate, the type of setting I wanted to work in. Then, I began to prioritize that list. I realized that one thing that matters a lot to me is to have a variety in my life. Thinking about this made me realize that I want a medical specialty where I can have a lot of variety in my work and work on unique and interesting cases. That way, I can stay excited about my job and always look forward to doing something unique or exciting at work. I think it would be hard for me to have a more repetitive job. So, I considered work variety to be one of my top priorities for what I want in a medical specialty. When I was deciding among medical specialties, I paid attention to whether the jobs tended to have a lot of variety or whether the doctors tended to repeat the same tasks primarily. I learned that jobs like Obstetrics have less variety because you are primarily doing the same work with each patient, but jobs in Internal Medicine have more variety since you see all kinds of cases. So, I definitely weighed that factor when deciding to go into Internal Medicine. Of course, it wasn't the only factor that I considered, but it was good to know that I was entering a job that matched my preferences.

Stephanie provided a great example about how she thought about her personal preferences for her medical specialty. She thought about how her ideal medical specialty would allow her to have variety. So you see, there are definitely ways to think about what you want in a medical specialty. Many medical students feel that they don't know

how to make decisions about their medical specialty. Self-appraisal is the first step to making good decisions. Once you understand your own preferences, then, you can think about what career fits with your preferences. Self-appraisal is something that any medical student can do. You probably do some self-appraisal already. You should feel confident that you are capable of engaging in self-appraisal about your ideal medical specialty. Even if you're not certain how you want things to be, you still know yourself and have some idea about your preferences. Just by taking out a little bit of time to think about these things, you can start the process of making decisions that will help you select a medical specialty that works for you.

Your next step is to close the presentation and complete the task provided. This task should start you on the road to engaging in more deep self-appraisal. The purpose of this task is to help you engage in self-appraisal by thinking about your preferences: your preferred job tasks, work environment, rewards, and challenges. It is important for you to understand how your unique preferences influence the type of job that will work for you. Now, please close this presentation and complete the task. When you are finished, you can begin Tutorial 2.

Tutorial 1 Tasks:

1. In the space provided, spend a minute or two brain-storming about your preferences for characteristics of your medical specialty. Write down brief phrases that come to mind. It could be something like "work with my hands" or "pays well".
2. From the list you just completed, write down the one preference that is the most important to you.
3. Write a sentence or two about why it is important to you.

TUTORIAL 2

Let's begin Tutorial 2: Gathering information.

Gathering information refers to gathering information about different medical specialties to learn about whether they will fit your preferences. This means taking the time to gather the necessary information from relevant sources about different medical specialties. As discussed in the previous tutorial, different medical specialties involve different job tasks. Different specialties also involve different work environments. Finally, different medical specialties offer different rewards and different challenges. The ways in which medical specialties differ will mean that some will match with your preferences whereas others will not. There is lots of different information that you can gather about medical specialties. This information will eventually help you decide whether the specialty is right for you.

Research suggests that you can benefit from gathering information about different medical specialties.Here are some examples of the types of information you can gather about the job tasks, work environment, rewards, and challenges of different medical specialties. For example, with regard to job tasks, you can find out whether the specialty requires you to perform long medical procedures. You can also gather information about work environment in the specialty, because medical specialties take place in different work environments. For example, you can find out whether the specialty is faced-paced. Finally, you can learn about the rewards and challenges of different medical specialty. For example, you could learn about the salaries in different medical specialties. By gathering information about the specific demands of different medical specialties, you can learn more about how they will fit with your preferences.

There are a number of different ways to gather information.
For example, you could use the internet or books to gather information about different medical specialties and their jobs tasks, work environment, rewards and challenges. You could also talk to doctors about the characteristics of their medical specialty. Additionally, when you are on rotation in different medical specialties during medical school, you can think about how the characteristics of the different medical specialties and whether they will match your preferences. Additionally, you can talk to a career counselor who may help you gain insight into the characteristics of different medical specialties. Now, I'd like you to listen to a medical student talk about his own information gathering process. Then, I'll describe a brief task that will help you to begin your own information gathering process.

Hey, I'm Tony. I'm doing my residency in general surgery. I can tell you a little bit about the process that I went through to learn about different medical specialties while I

was in med school. I did a lot of different things to get the information that I needed. I read a lot of articles that I found online about different medical specialties. There were tons of helpful statistics about the work hours and salary of different specialties. So, that was a good first step. But, then I realized that I needed more information. So, when I was doing my rotations in med school, I tried to observe different doctors and what their work life was like. I looked at the different job duties that they had, the kind of situation that they worked in, and how rewarding they found their jobs. I also talked to the doctors in different specialties and specifically asked them about the different aspects of their job. This helped me even more. After listening to them, I realized that different specialties are so different from one another. I was able to weigh the information that I gathered when making my decision to enter surgery. I found that the characteristics of surgery really matched my preferences.

Tony provided an example of how he was able to gather information about different medical specialties. By doing research, observing doctors, and speaking with doctors, he was able to gather valuable information. There are very straightforward ways to gather information that will help you learn about different medical specialties. Medical students may feel that the information that they need about different specialties isn't available or are shy about asking questions of doctors, professors, and career counselors. However, you really do have the ability to gather lots of information that will help you make an informed decision. You can gather tons of information from a number of different sources. You've probably already begun to gather information about different medical specialties. You should feel confident that you are capable of engaging in information gathering. By using some or all of the resources available to you, you can start to gather information that will help you pick a specialty that works for you.

Your next step is to close this presentation and complete the task provided. This should start you on the road to engaging in a more thorough information gathering process. The purpose of this task is to help you start thinking about the type of information that you would like to gather and the sources that you can get that information from. Now, please close this presentation and complete the task. When you are finished, you can begin Tutorial 3.

Tutorial 2 Tasks:

1. Write down two questions that you would want to ask about the characteristics of different medical specialties.
2. For each of those questions, write down one source that you could use to gather that information.

TUTORIAL 3

Let's begin the last tutorial: Identifying specialties that "fit"

Identifying fit refers to identifying a specialty that will fit with your preferences. This means using the knowledge that you gained through self appraisal and the information you gathered about different specialties to identify a few specialties that provide the best fit to your preferences. Identifying a specialty that fits with your preferences is an important step in preparing for your future medical career. After engaging in self-appraisal, you know what you're looking for. By gathering information, you know what the specialties have to offer. When you identify fit, you see which specialties offer what you're looking for.

Research suggests that when an individual selects a career that fits with their preferences, they experience greater satisfaction and higher performance. You can examine whether a specialty matches your preferences. The example provided here examines whether emergency medicine and obstetrics are a good fit with the preferences of a medical student. This medical student wants to have the opportunity to do a number of different unique procedures and to be able to become familiar with his patients. Emergency medicine offers the opportunity to perform unique procedures, so that makes it a good fit. However, it does not offer the opportunity for doctors to become very familiar with their patients, so this bad fit. On the other hand, Obstetrics requires the doctor to perform mainly routine procedures, so this is a bad fit, but it has medium levels of patient familiarity (since patients become familiar over a 9 month period, not usually a lifetime), so this is an okay fit. Overall, it looks like Emergency Medicine may offer a slightly better fit to the preferences of the medical student in this example. This example should help you see how you can assess the fit of different medical specialties with your preferences. Probably no specialty will be perfect, but some may fit your preferences and goals better than others.

I suggest that when you are evaluating whether a specialty fits your preferences, you create a table like the one on the previous slide. Write your top preferences and what the specialty you are considering offers in terms of that preference. Then, write down whether it fits or doesn't fit with each preference. This will help you to determine whether a particular specialty fits with your preferences. You can use this table to compare multiple specialties to one another, similar to the previous slide. Many medical students have found that creating a table such as this is worthwhile. It will help you select a medical specialty that matches your preferences. Now, I'd like you to listen to a medical student talk about her own process of identifying a specialty that fit her preferences. Then, I'll describe a brief task that will help you to begin your own process of thinking about a specialty that fits your preferences.

Hi, my name is Ruchi. I'm doing my residency in Pediatrics. I want to tell you a little bit about how I decided that Pediatrics was a good fit for me, in terms of how it matches my preferences. When I was deciding what specialty to enter, I created a table like the one suggested in this tutorial. I decided to focus on the two things that I decided were most important to me in a medical specialty. I wanted to feel like I was really helping people

and I wanted a specialty that utilized my communication skills. So, I picked my top three choices of specialty and analyzed how well they each matched my preferences. I found that pediatrics was the best fit for me. It ended up going into Pediatrics partially for this reason. It also fits well with my other interests. I definitely considered which specialty matched my preferences most closely when I was deciding on a specialty.

Ruchi provided an example of how she was able to identify a specialty that fit with her preferences. By matching the preferences that you identify through self-appraisal to the characteristics of the specialties that you identify through information gathering, you can find a specialty that will work for you. Finding a good match is something that every medical student can do. In fact, once you've thought about your own preferences and learned about the different specialties, you may already begin to have an idea of what specialties will fit best for you. Once you've engaged in self-appraisal and gathered information, figuring out the specialty that fits best is straight-forward. You have the capacity to identify a medical specialty that fits your goals and preferences.

Your next step is to close this presentation and complete the task provided. This task is just to help you start thinking about identifying fit. You'll need more time for self-appraisal and gathering information before you'll really be able to identify a good fit. Now, please close this presentation and complete the task. When you are finished, you will be asked to complete the remainder of the survey.

Tutorial 3 Tasks:

1. Write down one preference that you have for characteristics of your medical specialty.
2. Write down two medical specialties that you are interested in.
3. Write down how well you think each of those specialties matches your preference.
4. Identify which of those specialties you think provides the better fit to that preference.

Appendix H

Powerpoint slides for work-family condition including tasks

INTRODUCTION AND TUTORIAL 1

Welcome to "Balancing Work and Family: An Online Tutorial for Medical Students"

Please make sure that the volume on your computer is turned up so that you can hear the dialogue that accompanies these slides before proceeding. If you have trouble running the slide show or hearing the volume, please call (517) 432-7069. Someone will be in touch with you shortly. Do not proceed if you cannot hear the dialogue.

The following presentations are focused on an issue that is critical to many medical students: how to balance your career as a doctor with your family life. When we talk about work-family balance, we're talking about finding a balance that you are happy with between the medical career that you decide on and your family life. Your work obviously places demands on your time and energy. So does your family life. When we talk about your family, we're talking about your spouse or partner, your children, and sometimes caring for elderly parents. There is evidence that when people don't feel like they have a good balance between their work lives and their family lives they experience dissatisfaction and stress. However, there are steps that you can take now, in medical school, that may help you to prepare for balancing work and family after medical school. This online tutorial will help you with that process. You'll be thinking about your ideal work-family balance and how to pick a medical specialty that will help you balance work and family. You'll be asked to think about different aspects of work-family balance and how those will affect which specialty you decide upon. "I am Dr. Ann Marie Ryan, a professor of Psychology with an expertise in work-family balance. I'll be leading this online tutorial.

In the following tutorials, I want to provide you with some important information on strategies that you can use to help you prepare for choosing and entering your medical specialty in a way that will allow you to balance your work life with your family life. I hope to help you find a balance between work and family that meets your own personal goals, desires, and values. There will be three short tutorials. After each tutorial, you will complete a task that will help you to think about the information provided in the tutorial. Although each tutorial is brief, we are hoping to help you think about how you will balance your medical career with your family life. Remember that this tutorial is the starting point for thinking about these issues, and that you aren't expected to figure everything out in one day. I hope to show you that <u>you do</u> have the ability to make well-informed, well-thought-out decisions and that there are techniques, tools, and resources available to help you. The three tutorials are on the following steps that you can take to prepare you for selecting a medical specialty that's right for you:

Step 1: Self-appraisal: Understanding and assessing your personal ideal balance between your medical career and your family life.
Step 2: Gathering information: Using resources and strategies to gather information about the characteristics of different medical specialties and how they affect work-family balance.
Step 3: specialty selection: Identifying a medical specialty that fits with your unique preferences for balancing work and family.
Please watch each presentation carefully and complete the tasks provided. Each tutorial will begin with a discussion of one of the steps I just described . Then, you'll hear an example of a medical student who has completed this step. Then, I'll talk a little more about that step. After that, you'll complete a brief task to help you think about the tutorial. After you complete the task, you can click on the next tutorial. Thank you.

Let's begin Tutorial 1: Self-appraisal.
The first step in preparing to balance work and family is called "self appraisal".

Self-appraisal refers to assessing yourself to understand your own ideal balance between your medical career and your family life. This means taking the time to think about and analyze how you envision your work-life, your family-life and your balance between work and family. Different individuals, based on their own unique preferences, will envision different lifestyles. By understanding your unique preferences for balancing work and family, you can begin to understand what your ideal medical specialty looks like.

Existing research can guide your thinking about finding a specialty that suits your preferences for how you want to balance work and family. Researchers have found three major ways in which work interferes with family-life: Time, Stress, and Behaviors. You can appraise your own preferences for a medical specialty based on how it influences your time, stress, and behaviors. With regard to time, research suggests the time demands of work can interfere with time available for family. For example, hours of work and hours on call both influence time available for family. Additionally, when you can't predict or control your work hours, it creates challenges for your family life.
With regard to stress, research suggests that the stress of work can interfere with family-life because people often bring the stress of their work home with them, which negatively influence their family life. For example, if you work in an extremely fast-paced environment or have a lot of work overload, you may come home physically and psychologically exhausted. If you are making life-or-death decisions at work, you might bring the weight of those decisions home with you. Finally, with regard to behaviors, research suggests that when people commonly act in ways that are effective and necessary at work, they may have difficulty "shutting off" those behaviors at home. For example, someone who has to act very authoritative at work may have a greater tendency to act authoritative at home – which may create challenges for family life. Additionally,

behaviors such as following strict protocols or maintaining professionalism at work may influence family-life.

The first step in the self-appraisal process is to appraise your preferences. Here, we focus on the example of the time demands of your medical specialty. What are your preferences for the time-demands of your job? How many hours a week do you want to work? Do you want a predictable schedule? Do you mind being on call at night? Do you want a flexible schedule? Different individuals will have different preferences for the time demands of their job. The second step is to prioritize those preferences. Of course, in an ideal world, you would get everything you wanted in terms of the time-demands of your job. Since that's not realistic, it's critical to pick just a few characteristics of your job that are your top priorities in terms of balancing work and family. After you identify all of your preferences, select a few preferences that are the most important to you. You will use these preferences when you think about which specialty matches your preferences.

There are several tools that can assist you in the self-appraisal process.
You could record and track your preferences in a journal and evaluate their importance to you.
You could fill out questionnaires or surveys that assess your preferences. These surveys are often available online or through career services and can be scored to provide feedback to you. Additionally, you can have a conversation with a career counselor in which you discuss your preferences and identify your priorities. He or she may be able to ask thought-provoking questions that help you identify your preferences.
Finally, there may be friends or family members that you can discuss these issues with. Since they know you best, they may be able to help you think through what you want and what is really important to you. Now, I'd like you to listen to a medical student talk about her own self-appraisal process and how this influenced what she decided to look for in a medical specialty. Then, I'll describe a brief task that will help you to begin your own self-appraisal process.

Hi, my name is Stephanie, and I finished medical school in May of 2006. When I was deciding what medical specialty to enter, I decided to go through the self-appraisal process. Basically, I sat down at my computer and just started writing about my ideal job in terms of how it would influence my work-family balance. I wrote down all the things I could think of – the work hours, the stress, everything. Then, I began to prioritize that list. I realized that one thing that matters a lot to me is to be is to not get too stressed out on the job because I always tend to take my stress home with me and let it affect other aspects of my life. Thinking about this made me realize that I want a medical specialty where there are fewer emergencies and less on-the-job stress and time pressure. I think that it would be really stressful for me to have to deal with life-or-death situations on a daily basis and then to try to go home to be a family member. So, I considered lower job stress as one of my top priorities for how I want to balance work and family. When I was

deciding among medical specialties, I paid attention to whether the specialties had really high on-the-job stress. I learned that jobs like Emergency Medicine have really high on-the-job stress, but jobs in Internal Medicine have less on-the-job stress because most patients aren't facing an emergency. So, I definitely weighed that factor when deciding to go into Internal Medicine. Of course, it wasn't the only factor that I considered, but it was good to know that I was entering a job that matched my preferred way of balancing work and family.

Stephanie provided a great example about how she thought about her personal preferences for balancing work and family. She thought about how her ideal medical specialty would allow her to plan ahead for balancing work and family. So you see, you can engage in the self-appraisal process now to begin to understand how you want to balance work and family. Many medical students feel that they don't know how to make decisions about balancing work and family. Self-appraisal is the first step to making good decisions. Once you understand your own preferences, then, you can think about what career and family lifestyles fit with your preferences. Self-appraisal is something that any medical student can do. You probably do some self-appraisal already. You should feel confident that you are capable of engaging in self-appraisal about your ideal balance between work and family. Even if you're not certain how you want things to be, you still know yourself and have some idea about your preferences. Just by taking out a little bit of time to think about these things, you can start the process of making decisions that will help you balance work and family in the future.

Your next step is to close the presentation and complete the task provided. This task should start you on the road to engaging in more deep self-appraisal. The purpose of this task is to help you engage in self-appraisal by thinking about how you want to balance work and family. It is important for you to understand how your unique preferences influence the type of job that will help you to balance work and family in a way that meets your needs. Now, please close this presentation and complete the task.
When you are finished, you can begin Tutorial 2.

Tutorial 1 Tasks:

1. In the space provided, spend a minute or two brain-storming about your preferences for balancing work and family. Write down brief phrases that come to mind. It could be something like "home for dinner" or "not exhausted at the end of the day".
2. From the list you just completed, write down the one preference that is the most important to you in terms of how you want to balance work and family.
3. Write a sentence or two about why it is important to you.

TUTORIAL 2

Let's begin Tutorial 2: Gathering information.

Gathering information refers to gathering information about different medical specialties to learn about the demands that different medical specialties place on your ability to balance work and family. This means taking the time to gather the necessary information from relevant sources about different medical specialties.You can gather information about different medical specialties and how they influence work-family balancing by learning about the time, stress, and behavioral demands of different medical specialties. As discussed in the previous tutorial, different medical specialties place different demands on your time. They also place different amounts and types of stress on doctors. Finally, different medical specialties also have require different types of behaviors for effective performance. The ways in which medical specialties differ will mean that some will match with your preferences for balancing work and family whereas others will not match with your ideal balance between work and family. There is lots of different information that you can gather about medical specialties. This information will help you decide which specialty is right for you.

Research suggests that you can benefit from gathering information about different medical specialties. Here are some examples of the types of information you can gather about the time, strain, and behavioral demands of different medical specialties. With regard to time-based issues, you can find out what the average work hours are for different specialties or how predictable the hours are. You can learn about the stress that different specialties place on doctors. For example, you could learn how often you have to face medical emergencies in a particular specialty. Finally, you can also gather information about the behavioral demands of different specialties. For example, you can find out whether different specialties require you to act in specific ways such as dispassionate, authoritative, or decisive. By gathering information about the specific demands of different medical specialties, you can learn more about how they will affect your work-family balance and whether they will work for you.

There are a number of different ways to gather relevant information.
For example, you could use the internet or books to gather information about different medical specialties. You could also talk to doctors about the demands of their medical specialty and how those demands influence their ability to balance work and family. Additionally, when you are on rotation in different medical specialties during medical school, you can think about how the demands of the specialty would allow you to balance work and family if you were to enter that field full time. Additionally, you can talk to a career counselor who may help you gain insight into the demands of different medical specialties. Now, I'd like you to listen to a medical student talk about his own information gathering process. Then, I'll describe a brief task that will help you to begin your own information gathering process.

Hey, I'm Tony. I'm doing my residency in general surgery. I can tell you a little bit about the process that I went through to learn about how different medical specialties would influence my work-family balance while I was in med school. I did a lot of different things to get the information that I needed. I read a lot of articles that I found online about different medical specialties and ordered a book about medical specialties. There were tons of helpful statistics about the time and salary of different specialties. So, that was a good first step. But, then I realized that I needed more information about how doctors in different specialties manage to have a medical career and a family life. So, when I was doing my rotations in med school, I tried to observe different doctors and the daily lives that they led. I looked at how stressed out they were, how tired they seemed, whether they were on call on the weekends. I also talked to the doctors in different specialties and specifically asked them about their family life. This helped me even more. After listening to them, I realized that different specialties are so different in terms of the lifestyle that you get to lead outside of work. I was able to weigh the information that I gathered when making my decision to enter surgery. I found that the characteristics of surgery really matched my preferences for how I want to balance work and family.

Tony provided an example of how he was able to gather information about different medical specialties and how they influence work-family balance. By doing research, observing doctors, and speaking with doctors, he was able to gather valuable information. There are very straightforward ways to gather information that will help you learn about balancing work and family in different medical specialties. Medical students may feel that the information that they need about balancing work and family isn't available or are shy about asking questions of doctors, professors, and career counselors. However, you really do have the ability to gather lots of information that will help you make an informed decision. You can gather tons of information from a number of different sources. You've probably already begun to gather information about how different medical specialties will affect your personal life. You should feel confident that you are capable of engaging in information gathering. By using some or all of the resources available to you, you can start to gather information that will help you balance work and family in the future.

Your next step is to close this presentation and complete the task provided. This should start you on the road to engaging in a more thorough information gathering process. The purpose of this task is to help you start thinking about the type of information that you would like to gather and the sources that you can get that information from. Now, please close this presentation and complete the task. When you are finished, you can begin Tutorial 3.

Tutorial 2 Tasks:

1. Write down two questions that you would want to ask about the work-family demands of different medical specialties.

2. For each of those questions, write down one source that you could use to gather that information.

TUTORIAL 3

Let's begin the last tutorial: Identifying specialties that "fit"

Identifying fit refers to identifying a specialty that will fit with your work and family goals and preferences. This means using the knowledge that you gained in self appraisal and the information you gathered about different specialties to identify a few specialties that provide the best fit to your work-family preferences. Identifying a specialty that fits with your work-family goals is an important step in preparing for your future medical career and family life. After engaging in self-appraisal, you know what you're looking for. By gathering information, you know what the specialties have to offer. When you identify fit, you see which specialties offer what you're looking for.

Research suggests that when an individual selects a career that fits with their preferences, they experience greater satisfaction and higher performance. You can examine whether a specialty matches your preferences for how you want to balance work and family. The example provided here examines whether emergency medicine and obstetrics are a good fit with the work-family preferences of a medical student. This medical student wants predictable hours and low jobs stress. Emergency medicine offers predictable hours, so that makes it a good fit. However, it has high stress on-the-job, so that makes it a bad fit. On the other hand, Obstetrics has unpredictable hours, so this is a bad fit, but it has medium levels of on-the-job stress, so this is an okay fit. Overall, it looks like Emergency Medicine may offer a slightly better fit to the work-family preferences of this medical student in this example. This example should help you see how you can assess the fit of different medical specialties with your work-family preferences. Probably no specialty will be perfect, but some may fit your preferences and goals better than others.

I suggest that when you are evaluating whether a specialty fits your work and family preferences, you create a table like the one on the previous slide. Write your preferences for balancing work and family and what the specialty you are considering offers in terms of that preference. Then, write down whether it fits or doesn't fit with each preference. This will help you to determine whether a particular specialty fits with your preferences. You can use this table to compare multiple specialties to one another, similar to the previous slide. Many medical students have found that creating a table such as this is worthwhile. Although you may not enter the specialty that has the best fit with your work and family goals because of other reasons, it is still helpful to understand which specialty fits your work-family preferences best so that you can weigh that information when making your decision. Now, I'd like you to listen to a medical student talk about her own process of identifying a specialty that fit her work-family preferences. Then, I'll

describe a brief task that will help you to begin your own process of thinking about a specialty that fits your work and family preferences.

Hi, my name is Ruchi. I'm doing my residency in Pediatrics. I want to tell you a little bit about how I decided that Pediatrics was a good fit for me, in terms of how it will allow me to have my career and my family life at the same time. When I was deciding what specialty to enter, I created a table like the one suggested in this tutorial. I decided to focus on the two things that I decided were most important to me in terms of how I wanted to balance work and family. I wanted a flexible working schedule and a job that wasn't too stressful on a daily basis. So, I picked my top three choices of specialty and analyzed how well they each matched my preferences. I found that pediatrics was the best fit for me in terms of work-family balance. It ended up going into Pediatrics partially for this reason. It also fits well with my interests. I definitely considered which specialty was the best fit for my preferred work and family situation when I made my decision.

Ruchi provided an example of how she was able to identify a specialty that fit with her work-family preferences. By matching the work-family preferences that you identify through self-appraisal to the characteristics of the specialties that you identify through information gathering, you can find a specialty that will work for you. Finding a good match is something that every medical student can do. In fact, once you've thought about your own preferences and learned about the different specialties, you may already begin to have an idea of what specialties will fit best for you. Once you've engaged in self-appraisal and gathered information, figuring out the specialty that fits best is straight-forward. You have the capacity to identify a medical specialty that fits your goals and preferences for balancing work and family.

Your next step is to close this presentation and complete the task provided. This task is just to help you start thinking about identifying fit. You'll need more time for self-appraisal and gathering information before you'll really be able to identify a good fit. Now, please close this presentation and complete the task. When you are finished, you will be asked to complete the remainder of the survey.

Tutorial 3 Tasks:

1. Write down one preference that you have for how you want to balance work and family.
2. Write down two medical specialties that you are interested in.
3. Write down how well you think each of those specialties matches your preference.

Identify which of those specialties you think provides the better fit to that preference.

Appendix I
Anticipated Work-family Conflict Items

Instructions: Thinking about your future job in medicine and the family that you plan to have in the future, please indicate whether you agree or disagree with the following statements. Your ratings should range from 1 (showing that you *strongly disagree* with the statement) to 5 (showing that you *strongly agree* with the statement).

1 = Strong disagree
2 = Disagree
3 = Neither agree nor disagree
4 = Agree
5 = Strongly agree

Time-based work-interference-with-family
1. My work will keep me from my family activities more than I would like.
2. The time I will devote to my job will keep me from participating equally in household responsibilities and activities.
3. I will have to miss family activities due to the amount of time I will have to spend on work responsibilities.

Time-based family-interference-with-work
1. The time I will spend on family responsibilities will often interfere with my work responsibilities.
2. The time I will spend with my family will often cause me not to spend time in activities at work that could be helpful to my career.
3. I will have to miss work activities due to the amount of time I will have to spend on family responsibilities.

Strain-based work-interference-with-family
1. I think that when I get home from work I will often be too frazzled to participate in family activities/responsibilities.
2. I will often be so emotionally drained when I get home from work that it will prevent me from contributing to my family.
3. Due to all the pressures I will have at work, sometimes when I get home I will be too stressed to do the things I enjoy.

Strain-based family-interference-with-work
1. Due to stress at home, I will often be too preoccupied with family matters at work.
2. Because I will often be stressed from my family responsibilities, I will have a hard time concentrating on my work.
3. Tension and anxiety from my family life will often weaken my ability to do my job.

Behavior-based work-interference-with-family

1. The problem-solving behaviors I will use in my job will not be effective in resolving problems at home.
2. Behavior that is effective and necessary for me at work will be counterproductive at home.
3. The behaviors that I will perform that will make me effective at work will not help me to be a better parent and spouse/partner.

Behavior-based family-interference-with-work

1. The behaviors that will work for me at home will not be effective at work.
2. Behavior that is effective and necessary for me at home will be counterproductive at work.
3. The problem-solving behavior that will work for me at home will not be as useful at work.

Appendix J

Anticipated Work-Family Conflict Item Intercorrelations

Table J1

Anticipated Work-Family Conflict Item Intercorrelations for Time 1

	Mean	*sd*	1	2	3	4	5	6	7	8
TWIF Item 1	3.41	0.88								
TWIF Item 2	3.28	0.96	.60							
TWIF Item 3	3.50	0.85	.57	.42						
TFIW Item 1	2.88	0.87	.24	.24	.37					
TFIW Item 2	3.16	0.93	.21	.17	.26	.41				
TFIW Item 3	3.12	0.87	.16	.07	.21	.42	.62			
SWIF Item 1	2.35	0.92	.25	.22	.31	.24	.27	.16		
SWIF Item 2	2.42	1.01	.28	.23	.31	.30	.32	.17	.69	
SWIF Item 3	2.94	1.15	.28	.11	.28	.21	.30	.24	.52	.63
SFIW Item 1	2.27	0.89	.14	.03	.18	.35	.19	.26	.54	.64
SFIW Item 2	2.25	0.88	.08	.02	.11	.34	.22	.33	.57	.59
SFIW Item 3	2.18	0.89	.00	.07	.06	.27	.22	.23	.53	.65
BWIF Item 1	2.43	1.03	.09	.10	.02	-.04	-.01	.04	.24	.27
BWIF Item 2	2.44	0.96	.05	.16	.14	.09	.07	.15	.35	.38
BWIF Item 3	2.40	0.99	.11	.19	-.05	.02	.01	.05	.27	.29
BFIW Item 1	2.33	0.80	.04	.22	.01	.13	.03	.16	.34	.39
BFIW Item 2	2.31	0.78	.10	.28	.18	.18	.10	.19	.36	.44
BFIW Item 3	2.27	0.81	.06	.22	.06	.17	.07	.21	.30	.42

Notes. N = 104 to 108. Correlations with $r \geq |.19|$ are significant at $p < .05$. Correlations with $r \geq |.25|$ are significant at $p < .01$. TWIF = time-based work-interference-with-family. TFIW = time-based family-interference-with-work. SWIF = strain-based work-interference-with-family. SFIW = strain-based family-interference-with-work. BWIF = behavior-based work-interference-with-family. BFIW = behavior-based family-interference-with-work.

Table J1, continued

Anticipated Work-Family Conflict Item Intercorrelations for Time 1

	9	10	11	12	13	14	15	16	17
TWIF Item 1									
TWIF Item 2									
TWIF Item 3									
TFIW Item 1									
TFIW Item 2									
TFIW Item 3									
SWIF Item 1									
SWIF Item 2									
SWIF Item 3									
SFIW Item 1	.59								
SFIW Item 2	.58	.85							
SFIW Item 3	.53	.78	.83						
BWIF Item 1	.17	.24	.30	.32					
BWIF Item 2	.29	.43	.45	.46	.65				
BWIF Item 3	.22	.32	.33	.34	.49	.53			
BFIW Item 1	.32	.38	.46	.49	.57	.69	.62		
BFIW Item 2	.26	.36	.43	.46	.67	.75	.56	.84	
BFIW Item 3	.31	.34	.40	.44	.59	.69	.54	.76	.83

Table J2

Anticipated Work-Family Conflict Item Intercorrelations for Time 2

	Mean	*sd*	1	2	3	4	5	6	7	8
TWIF Item 1	3.22	0.98								
TWIF Item 2	2.98	0.98	.64							
TWIF Item 3	3.15	0.98	.74	.61						
TFIW Item 1	2.71	0.91	.41	.37	.46					
TFIW Item 2	3.03	0.98	.48	.44	.49	.48				
TFIW Item 3	2.80	0.92	.45	.26	.41	.60	.64			
SWIF Item 1	2.35	0.95	.30	.36	.37	.31	.24	.31		
SWIF Item 2	2.33	0.92	.34	.35	.39	.37	.25	.32	.90	
SWIF Item 3	2.76	1.04	.39	.42	.47	.23	.27	.26	.67	.65
SFIW Item 1	2.26	0.78	.17	.21	.24	.38	.09	.33	.65	.61
SFIW Item 2	2.24	0.77	.26	.27	.28	.42	.11	.31	.73	.65
SFIW Item 3	2.14	0.80	.16	.11	.18	.33	.11	.22	.64	.63
BWIF Item 1	2.32	0.85	.19	.24	.15	.27	.14	.25	.38	.48
BWIF Item 2	2.35	0.88	.12	.25	.11	.25	.15	.24	.37	.38
BWIF Item 3	2.48	0.94	.14	.30	.07	.16	.28	.22	.25	.30
BFIW Item 1	2.30	0.85	.19	.32	.17	.20	.22	.21	.34	.39
BFIW Item 2	2.29	0.88	.20	.33	.15	.20	.21	.23	.34	.38
BFIW Item 3	2.29	0.86	.18	.34	.18	.28	.18	.24	.41	.44

Notes. N = 104 to 108. Correlations with $r \geq |.19|$ are significant at $p < .05$. Correlations with $r \geq |.25|$ are significant at $p < .01$. TWIF = time-based work-interference-with-family. TFIW = time-based family-interference-with-work. SWIF = strain-based work-interference-with-family. SFIW = strain-based family-interference-with-work. BWIF = behavior-based work-interference-with-family. BFIW = behavior-based family-interference-with-work.

Table J2, continued

Anticipated Work-Family Conflict Item Intercorrelations for Time 2

	9	10	11	12	13	14	15	16	17
TWIF Item 1									
TWIF Item 2									
TWIF Item 3									
TFIW Item 1									
TFIW Item 2									
TFIW Item 3									
SWIF Item 1									
SWIF Item 2									
SWIF Item 3									
SFIW Item 1	.48								
SFIW Item 2	.52	.84							
SFIW Item 3	.45	.72	.79						
BWIF Item 1	.34	.40	.43	.43					
BWIF Item 2	.33	.42	.45	.37	.81				
BWIF Item 3	.29	.33	.33	.27	.54	.60			
BFIW Item 1	.30	.41	.41	.40	.74	.75	.57		
BFIW Item 2	.27	.42	.41	.33	.71	.86	.60	.86	
BFIW Item 3	.29	.40	.47	.41	.87	.83	.55	.79	.77

Table J3

Anticipated Work-Family Conflict Item Intercorrelations for Time 3

	Mean	*sd*	1	2	3	4	5	6	7	8
TWIF Item 1	3.31	0.95								
TWIF Item 2	3.04	1.02	.68							
TWIF Item 3	3.21	0.99	.68	.63						
TFIW Item 1	2.76	0.92	.48	.58	.48					
TFIW Item 2	3.11	1.06	.40	.43	.37	.69				
TFIW Item 3	3.02	0.97	.28	.33	.35	.64	.76			
SWIF Item 1	2.31	0.89	.14	.28	.26	.40	.31	.28		
SWIF Item 2	2.31	0.91	.15	.24	.22	.33	.25	.25	.86	
SWIF Item 3	2.83	1.11	.26	.23	.25	.27	.22	.15	.71	.71
SFIW Item 1	2.33	0.90	.18	.30	.26	.42	.28	.25	.62	.68
SFIW Item 2	2.25	0.85	.12	.26	.19	.39	.24	.21	.64	.69
SFIW Item 3	2.19	0.91	.06	.26	.18	.40	.23	.22	.62	.67
BWIF Item 1	2.38	0.89	.20	.30	.19	.36	.17	.25	.37	.35
BWIF Item 2	2.32	0.82	.10	.21	.18	.33	.14	.22	.38	.36
BWIF Item 3	2.48	0.94	.06	.17	.09	.20	.19	.11	.28	.16
BFIW Item 1	2.28	0.81	.15	.27	.20	.29	.10	.15	.42	.35
BFIW Item 2	2.30	0.80	.10	.21	.17	.31	.07	.15	.31	.31
BFIW Item 3	2.41	0.83	.05	.22	.10	.31	.18	.18	.24	.15

Notes. N = 104 to 108. Correlations with $r \geq |.19|$ are significant at $p < .05$. Correlations with $r \geq |.25|$ are significant at $p < .01$. TWIF = time-based work-interference-with-family. TFIW = time-based family-interference-with-work. SWIF = strain-based work-interference-with-family. SFIW = strain-based family-interference-with-work. BWIF = behavior-based work-interference-with-family. BFIW = behavior-based family-interference-with-work.

Table J3, continued

Anticipated Work-Family Conflict Item Intercorrelations for Time 3

	9	10	11	12	13	14	15	16	17
TWIF Item 1									
TWIF Item 2									
TWIF Item 3									
TFIW Item 1									
TFIW Item 2									
TFIW Item 3									
SWIF Item 1									
SWIF Item 2									
SWIF Item 3									
SFIW Item 1	.59								
SFIW Item 2	.58	.92							
SFIW Item 3	.57	.80	.82						
BWIF Item 1	.32	.33	.35	.38					
BWIF Item 2	.25	.38	.42	.42	.74				
BWIF Item 3	.23	.26	.30	.31	.51	.47			
BFIW Item 1	.37	.36	.44	.45	.72	.73	.50		
BFIW Item 2	.22	.42	.50	.45	.67	.75	.40	.80	
BFIW Item 3	.12	.25	.30	.27	.55	.60	.57	.69	.66

Appendix K

Anticipated Work-family Conflict CFAs at Each Administration

Table K1

Estimates of Fit Indices for Anticipated Work-Family Conflict at Time 1

	χ^2	*Df*	*P*	Comparative Fit Index (CFI)	Root mean square error of approximation (RMSEA)
6-dimensional model	185.15	126	.00	.94	.07
3-dimensional model	267.73	132	.00	.87	.10
2-dimensional model	635.04	134	.00	.52	.19
Unidimensional model	623.88	135	.00	.53	.19

N = 100

Table K2

Estimates of Fit Indices for Anticipated Work-Family Conflict at Time 2

	χ^2	*Df*	*P*	Comparative Fit Index (CFI)	Root mean square error of approximation (RMSEA)
6-dimensional model	301.18	126	.00	.87	.12
3-dimensional model	386.89	132	.00	.82	.15
2-dimensional model	837.67	134	.00	.49	.24
Unidimensional model	707.60	135	.00	.48	.23

N = 93

Table K3

Estimates of Fit Indices for Anticipated Work-Family Conflict at Time 3

	χ^2	*Df*	*P*	Comparative Fit Index (CFI)	Root mean square error of approximation (RMSEA)
6-dimensional model	180.14	126	.00	.95	.07
3-dimensional model	307.76	132	.00	.84	.13
2-dimensional model	643.40	134	.00	.54	.21
Unidimensional model	707.60	135	.00	.48	.23

N = 85

Appendix L

Certainty Regarding Medical Specialty Plans Items

1. Please indicate which medical specialty you feel that you are MOST likely to enter.
    a. Anesthesiology
    b. Dermatology
    c. Emergency medicine
    d. Family practice
    e. Internal medicine
    f. Medical genetics
    g. Neurological surgery
    h. Neurology
    i. Nuclear medicine
    j. Obstetrics and gynecology
    k. Opthalmology
    l. Orthopedic surgery
    m. Otolaryngology
    n. Pathology – anatomical and clinical
    o. My 1st choice is not listed here (see next item)

2. Please indicate which specialty you feel that you are MOST LIKELY to enter.
    a. Pediatrics
    b. Physical medicine and rehabilitation
    c. Plastic surgery
    d. Preventive medicine
    e. Psychiatry
    f. Radiation oncology
    g. Radiology – diagnostic
    h. Surgery – general
    i. Urology
    j. Unsure
    k. Other _____
    l. I selected my first choice in the previous question

3. How certain are you that your medical specialty plans will actually happen?
    a. Very unsure
    b. Unsure
    c. Neither sure nor unsure
    d. Sure
    e. Very sure

4. How likely is it that you will change your mind about your medical specialty plans?
    a. Very unlikely
    b. Unlikely
    c. Neither likely nor unlikely
    d. Likely
    e. Very likely

5. How much doubt do you have about your medical specialty plans?
    a. Very little doubt
    b. Little doubt
    c. Neither a lot of doubt nor a little doubt
    d. Some doubt
    e. A lot of doubt

Appendix M

Certainty Regarding Medical Specialty Plans Item Intercorrelations

	Mean	*sd*	1	2	3	4	5	6
Time 1								
1. Item 1	3.47	1.16						
2. Item 2	3.14	1.16	.81					
3. Item 3	2.94	1.27	.76	.74				
Time 2								
4. Item 1	3.49	1.03	.82	.67	.68			
5. Item 2	3.08	1.16	.79	.90	.75	.69		
6. Item 3	3.02	1.19	.74	.72	.89	.69	.79	
Time 3								
7. Item 1	3.56	1.04	.80	.70	.64	.84	.68	.66
8. Item 2	2.97	1.11	.76	.75	.68	.70	.64	.67
9. Item 3	3.03	1.21	.65	.61	.71	.70	.61	.65

Notes. N ranges from 91 to 108. Correlations with $r \geq |.21|$ are significant at $p < .05$. Correlations with $r \geq |.27|$ are significant at $p < .01$.

	7	8
Time 1		
1. Item 1		
2. Item 2		
3. Item 3		
Time 2		
4. Item 1		
5. Item 2		
6. Item 3		
Time 3		
7. Item 1		
8. Item 2	.68	
9. Item 3	.72	.76

Appendix N

Certainty Regarding Family Plans Items

1. Do you plan to be married or have a life-long committed partnership at some point in your life?
   a. Yes
   b. No
   c. Maybe
   d. I haven't thought about it

2. At what age do you plan to marry or enter a life-long committed partnership?
   a. I do not plan to be married/partnered
   b. I am already married/partnered
   c. 22 – 25 years old
   d. 25 – 30 years old
   e. 30 – 35 years old
   f. 35 years old or older
   g. Unsure
   h. I haven't thought about it

3. Do you plan to have children at some point in your life?
   a. Yes
   b. No
   c. Maybe
   d. I haven't thought about it

4. How many children do you plan to have (include in this number any children that you already have)?
   a. 0
   b. 1
   c. 2
   d. 3
   e. 4
   f. 5 or more
   g. I haven't thought about it
   h. Unsure

5. At what age do you plan to start having children?
   a. I already have children
   b. 21 – 23
   c. 24 – 26
   d. 27 – 29
   e. 30 – 32
   f. 33 – 35
   g. 35+
   h. I haven't thought about it

i. Unsure
j. I do not plan to have children

6. How certain are you that your family plans will actually happen?
   a. Very unsure
   b. Unsure
   c. Neither sure nor unsure
   d. Sure
   e. Very sure

7. How likely is it that you will change your mind about your family plans?
   a. Very unlikely
   b. Unlikely
   c. Neither likely nor unlikely
   d. Likely
   e. Very likely

8. How much doubt do you have about your family plans?
   a. Very little doubt
   b. Little doubt
   c. Neither a lot of doubt nor a little doubt
   d. Some doubt
   e. A lot of doubt

Appendix O

Certainty Regarding Family Plans Item Intercorrelations

	Mean	*sd*	1	2	3	4	5	6
Time 1								
1. Item 1	3.36	1.18						
2. Item 2	3.69	1.18	.81					
3. Item 3	3.36	1.27	.76	.75				
Time 2								
4. Item 1	3.40	1.27	.82	.67	.68			
5. Item 2	3.61	1.11	.79	.90	.75	.69		
6. Item 3	3.38	1.25	.74	.72	.89	.69	.79	
Time 3								
7. Item 1	3.53	1.20	.80	.70	.64	.84	.68	.66
8. Item 2	3.63	1.18	.76	.75	.68	.70	.76	.67
9. Item 3	3.44	1.29	.65	.61	.71	.70	.61	.65

Note. N ranges from 91 to 108. Correlations with $r \geq |.21|$ are significant at $p < .05$. Correlations with $r \geq |.27|$ are significant at $p < .01$.

	7	8
Time 1		
1. Item 1		
2. Item 2		
3. Item 3		
Time 2		
4. Item 1		
5. Item 2		
6. Item 3		
Time 3		
7. Item 1		
8. Item 2	.68	
9. Item 3	.72	.76

Appendix P

Career Decision Self-efficacy Items

Instructions: For each statement below, please think about your future career and indicate how much confidence you have that you could accomplish each of these tasks.

1 = No confidence at all
2 = Very little confidence
3 = Moderate confidence
4 = Much confidence
5 = Complete confidence

Self-appraisal

1. Accurately assess your abilities in the medical field.
2. Determine what your ideal medical specialty should be.
3. Decide what you value most in a medical specialty.
4. Figure out what you are and are not ready to sacrifice to achieve your career goals.
5. Define the type of lifestyle you would like to live.

Gathering information

1. Use the internet to find information about the medical specialties that interest you.
2. Find out the employment trends for different medical specialties over the next ten years.
3. Find out about the average yearly earnings of people in a medical specialty.
4. Talk with a person already employed in a medical specialty that you are interested in.
5. Find information about residencies in your preferred medical specialty.

Goal selection

1. Select one medical specialty from a list of potential specialties that you are considering.
2. Select one residency program from a list of potential residency programs that you are considering.
3. Choose a medical specialty that will fit your preferred lifestyle.
4. Make a decision about which medical specialty to pursue and then not worry about whether it was right or wrong.
5. Choose a medical specialty that will fit your interests.

Appendix Q
Career Decision Self-efficacy Item Intercorrelations

Table Q1

Career Decision Self-Efficacy Item Intercorrelations for Time 1

	Mean	*sd*	1	2	3	4	5	6	7
Item 1 – SA	3.63	0.82							
Item 2 – SA	3.58	0.90	.41						
Item 3 – SA	3.76	0.78	.47	.68					
Item 4 – SA	3.81	0.76	.41	.40	.52				
Item 5 – SA	4.03	0.76	.43	.38	.53	.51			
Item 6 – GI	3.97	0.80	.20	.14	.18	.17	.20		
Item 7 – GI	3.29	0.94	.24	.33	.31	.21	.20	.33	
Item 8 – GI	3.79	0.93	.19	.18	.28	.18	.17	.42	.64
Item 9 – GI	4.29	0.68	.29	.36	.30	.23	.20	.27	.21
Item 10 – GI	4.05	0.80	.37	.34	.32	.32	.29	.32	.39
Item 11 – GS	3.59	0.91	.27	.64	.44	.36	.14	.16	.42
Item 12 – GS	3.41	0.94	.48	.45	.40	.29	.28	.10	.42
Item 13 – GS	3.65	0.86	.41	.67	.64	.46	.51	.27	.51
Item 14 – GS	3.12	1.10	.38	.56	.51	.37	.31	.06	.37
Item 15 – GS	3.86	0.87	.53	.63	.58	.53	.45	.24	.39

Notes. N = 106 to 108. Correlations with $r \geq |.19|$ are significant at $p < .05$. Correlations with $r \geq |.25|$ are significant at $p < .01$. SA = self-appraisal, GI = gathering information, and GS = goal selection.

Table Q1, continued

Career Decision Self-Efficacy Item Intercorrelations for Time 1

	8	9	10	11	12	13	14
Item 1 – SA							
Item 2 – SA							
Item 3 – SA							
Item 4 – SA							
Item 5 – SA							
Item 6 – GI							
Item 7 – GI							
Item 8 – GI							
Item 9 – GI	.36						
Item 10 – GI	.47	.47					
Item 11 – GS	.31	.36	.45				
Item 12 – GS	.41	.30	.42	.67			
Item 13 – GS	0.42	0.40	0.51	0.60	0.53		
Item 14 – GS	0.26	0.39	0.38	0.60	0.53	0.66	
Item 15 – GS	0.37	0.49	0.49	0.56	0.53	0.72	0.62

Table Q2

Career Decision Self-Efficacy Item Intercorrelations for Time 2

	Mean	*sd*	1	2	3	4	5	6	7
Item 1 – SA	3.75	0.78							
Item 2 – SA	3.76	0.77	.69						
Item 3 – SA	3.86	0.70	.66	.73					
Item 4 – SA	3.74	0.78	.61	.66	.65				
Item 5 – SA	3.98	0.82	.51	.55	.56	.67			
Item 6 – GI	3.90	0.85	.23	.29	.24	.34	.42		
Item 7 – GI	3.48	1.00	.30	.38	.34	.40	.48	.66	
Item 8 – GI	3.83	0.94	.26	.30	.28	.43	.54	.69	.72
Item 9 – GI	4.24	0.72	.35	.44	.36	.36	.39	.42	.45
Item 10 – GI	4.13	0.75	.39	.43	.44	.51	.51	.49	.55
Item 11 – GS	3.75	0.86	.51	.61	.56	.63	.56	.23	.32
Item 12 – GS	3.64	0.81	.58	.55	.55	.60	.53	.25	.33
Item 13 - GS	3.81	0.81	.59	.68	.63	.72	.60	.31	.41
Item 14 – GS	3.51	1.02	.52	.62	.49	.62	.45	.15	.31
Item 15 – GS	3.98	0.79	.55	.69	.72	.71	.58	.30	.32

Notes. N = 106 to 108. Correlations with $r \geq |.19|$ are significant at $p < .05$. Correlations with $r \geq |.25|$ are significant at $p < .01$. SA = self-appraisal, GI = gathering information, and GS = goal selection.

Table Q2, continued

Career Decision Self-Efficacy Item Intercorrelations for Time 2

	8	9	10	11	12	13	14
Item 1 – SA							
Item 2 – SA							
Item 3 – SA							
Item 4 – SA							
Item 5 – SA							
Item 6 – GI							
Item 7 – GI							
Item 8 – GI							
Item 9 – GI	.36						
Item 10 – GI	.61	.58					
Item 11 – GS	.40	.41	.48				
Item 12 – GS	.39	.36	.54	.77			
Item 13 - GS	.36	.45	.53	.72	.69		
Item 14 – GS	.32	.34	.40	.78	.60	.66	
Item 15 – GS	.30	.44	.56	.60	.55	.74	.61

Table Q3

Career Decision Self-Efficacy Item Intercorrelations for Time 3

	Mean	*sd*	1	2	3	4	5	6	7
Item 1 – SA	3.63	0.69							
Item 2 – SA	3.62	0.73	.48						
Item 3 – SA	3.95	0.70	.55	.65					
Item 4 – SA	3.85	0.71	.44	.48	.56				
Item 5 – SA	4.03	0.75	.41	.47	.46	.53			
Item 6 – GI	4.02	0.79	.28	.05	.16	.15	.21		
Item 7 – GI	3.53	0.74	.21	.13	.13	.26	.20	.51	
Item 8 – GI	3.88	0.83	.17	.11	.16	.20	.26	.63	.63
Item 9 – GI	4.29	0.70	.43	.35	.48	.29	.30	.43	.28
Item 10 – GI	4.16	0.73	.38	.27	.38	.28	.33	.57	.39
Item 11 – GS	3.70	0.85	.53	.66	.57	.64	.38	.21	.23
Item 12 – GS	3.62	0.84	.47	.53	.47	.56	.31	.21	.17
Item 13 - GS	3.71	0.72	.47	.57	.54	.58	.47	.33	.30
Item 14 – GS	3.58	0.87	.43	.60	.39	.49	.37	.13	.16
Item 15 – GS	4.03	0.72	.58	.66	.59	.42	.41	.23	.17

Notes. N = 89 to 91. Correlations with $r \geq |.21|$ are significant at $p < .05$. Correlations with $r \geq |.27|$ are significant at $p < .01$. SA = self-appraisal, GI = gathering information, and GS = goal selection.

Table Q3, continued

Career Decision Self-Efficacy Item Intercorrelations for Time 3

	8	9	10	11	12	13	14
Item 1 – SA							
Item 2 – SA							
Item 3 – SA							
Item 4 – SA							
Item 5 – SA							
Item 6 – GI							
Item 7 – GI							
Item 8 – GI							
Item 9 – GI	.44						
Item 10 – GI	.56	.66					
Item 11 – GS	.22	.44	.35				
Item 12 – GS	.23	.25	.42	.69			
Item 13 - GS	.39	.45	.51	.66	.62		
Item 14 – GS	.18	.20	.28	.72	.56	.53	
Item 15 – GS	.19	.33	.39	.63	.51	.64	.64

Appendix R

Results of CFA for Career Decision Self-efficacy Items

	N	χ^2	*Df*	*P*	Comparative Fit Index (CFI)	Root mean square error of approximation (RMSEA)
Time 1	106	153.89	80	.00	.91	.09
Time 2	103	117.13	81	.01	.97	.07
Time 3	88	135.32	83	.00	93	.09

Appendix S

Work-family Decision-making Self-efficacy Items

Instructions: For each statement below, please think about how you want to balance your family life and your work in the future and indicate how much confidence you have that you could accomplish each of these tasks.

1 = No confidence at all
2 = Very little confidence
3 = Moderate confidence
4 = Much confidence
5 = Complete confidence

Self-appraisal

1. Accurately assess your preferences for how you want to balance your family life with your work in medicine.
2. Determine what your ideal balance between family and work would be.
3. Decide how you want to balance your family life with your work in medicine.
4. Figure out what you are and are not willing to sacrifice in your family life to achieve your work goals.
5. Define how you would ideally like to balance family and work in the future.

Gathering information

1. Gather information about the challenges for balancing family and work in different medical specialties.
2. Find out about the demands that different medical specialties place on doctors for balancing family and work.
3. Find out about the work-family balance of doctors in different medical specialties.
4. Talk with doctors about the work-family balance they experience in their medical specialties.
5. Find information about the challenges and benefits of balancing family and work in different medical specialties.

Goal selection

1. Select a medical specialty that will put you on the right path for balancing family and work as a doctor.
2. Select one medical specialty that matches your preferences for how you want to balance your family life with your work in medicine.
3. Choose a medical specialty that will allow you to balance family and work in the ways that you want.
4. Stay committed to pursuing a medical specialty that will allow you to balance family and work.
5. Choose a medical specialty that fits with your goals for how you want to balance family and work.

Appendix T

Work-family Decision-making Self-efficacy Item Intercorrelations

Table T1

Work-family Decision-making Self-efficacy Item Intercorrelations for Time 1

	Mean	*sd*	1	2	3	4	5	6	7
Item 1 – SA	3.48	0.81							
Item 2 – SA	3.48	0.86	.76						
Item 3 - SA	3.36	0.85	.63	.72					
Item 4 – SA	3.66	0.83	.54	.69	.52				
Item 5 – SA	3.53	0.80	.62	.67	.62	.55			
Item 6 – GI	3.41	0.79	.32	.31	.36	.29	.26		
Item 7 – GI	3.51	0.80	.49	.47	.41	.43	.32	.73	
Item 8 – GI	3.54	0.84	.44	.42	.38	.40	.35	.74	.84
Item 9 – GI	3.74	0.84	.28	.28	.27	.36	.33	.56	.56
Item 10 – GI	3.56	0.79	.38	.36	.42	.45	.37	.69	.73
Item 11 – GS	3.40	0.89	.56	.48	.52	.51	.49	.49	.54
Item 12 - GS	3.36	0.89	.56	.45	.54	.50	.42	.52	.52
Item 13 – GS	3.41	0.83	.55	.49	.50	.55	.47	.49	.50
Item 14 – GS	3.64	0.86	.58	.49	.56	.51	.46	.45	.46
Item 15 – GS	3.50	0.88	.60	.53	.47	.51	.50	.50	.54

Notes. N = 107 to 108. Correlations with $r \geq |.19|$ are significant at $p < .05$. Correlations with $r \geq |.25|$ are significant at $p < .01$. SA = self-appraisal. GI = gathering information. GS = goal selection.

Table T1, continued

Work-family Decision-making Self-eficacy Item Intercorrelations for Time 1

	8	9	10	11	12	13	14
Item 1 – SA							
Item 2 – SA							
Item 3 – SA							
Item 4 – SA							
Item 5 – SA							
Item 6 – GI							
Item 7 – GI							
Item 8 – GI							
Item 9 – GI	.72						
Item 10 – GI	.76	.74					
Item 11 – GS	.54	.46	.54				
Item 12 – GS	.51	.44	.51	.89			
Item 13 – GS	.50	.45	.52	.78	.87		
Item 14 – GS	.56	.44	.52	.69	.71	0.65	
Item 15 – GS	.58	.44	.52	.76	.79	.84	.75

Table T2

Work-family Decision-making Self-efficacy Item Intercorrelations for Time 2

	Mean	*sd*	1	2	3	4	5	6	7
Item 1 – SA	3.72	0.77							
Item 2 – SA	3.74	0.79	.82						
Item 3 – SA	3.62	0.79	.76	.77					
Item 4 – SA	3.74	0.79	.73	.69	.77				
Item 5 – SA	3.66	0.79	.83	.77	.81	.76			
Item 6 – GI	3.74	0.80	.56	.54	.60	.57	.57		
Item 7 – GI	3.76	0.83	.51	.56	.60	.59	.57	.82	
Item 8 – GI	3.78	0.80	.58	.61	.65	.60	.67	.77	.89
Item 9 – GI	4.00	0.79	.53	.54	.60	.54	.56	.73	.76
Item 10 – GI	3.74	0.79	.52	.55	.65	.57	.57	.74	.79
Item 11 – GS	3.60	0.83	.62	.67	.72	.64	.68	.42	.52
Item 12 – GS	3.65	0.80	.59	.67	.71	.65	.69	.50	.57
Item 13 – GS	3.64	0.78	.61	.66	.70	.65	.69	.51	.57
Item 14 – GS	3.66	0.82	.62	.69	.71	.64	.60	.52	.59
Item 15 – GS	3.68	0.82	.65	.66	.69	.66	.69	.50	.57

Notes. N = 106 to 108. Correlations with $r \geq |.19|$ are significant at $p < .05$. Correlations with $r \geq |.25|$ are significant at $p < .01$. SA = self-appraisal. GI = gathering information. GS = goal selection.

Table T2, continued

Work-family Decision-making Self-efficacy Item Intercorrelations for Time 2

	8	9	10	11	12	13	14
Item 1 – SA							
Item 2 – SA							
Item 3 – SA							
Item 4 – SA							
Item 5 – SA							
Item 6 – GI							
Item 7 – GI							
Item 8 – GI							
Item 9 – GI	.80						
Item 10 – GI	.82	.75					
Item 11 – GS	.54	.50	.57				
Item 12 – GS	.62	.58	.59	.80			
Item 13 – GS	.53	.54	.61	.81	.86		
Item 14 – GS	.60	.52	.56	.77	.76	.78	
Item 15 – GS	.58	.55	.59	.80	.79	.86	.87

Table T3

Work-family Decision-making Self-efficacy Item Intercorrelations for Time 3

	Mean	*sd*	1	2	3	4	5	6	7
Item 1 – SA	3.59	0.70							
Item 2 – SA	3.70	0.74	.69						
Item 3 – SA	3.63	0.68	.66	.76					
Item 4 – SA	3.81	0.73	.44	.38	.56				
Item 5 – SA	3.75	0.71	.67	.62	.54	.43			
Item 6 – GI	3.64	0.72	.42	.39	.40	.36	.43		
Item 7 – GI	3.73	0.73	.41	.42	.44	.49	.49	.82	
Item 8 – GI	3.76	0.74	.48	.53	.51	.53	.53	.72	.79
Item 9 – GI	3.96	0.82	.35	.23	.33	.44	.44	.56	.64
Item 10 – GI	3.67	0.78	.38	.43	.43	.54	.53	.72	.79
Item 11 – GS	3.58	0.78	.48	.41	.50	.53	.49	.46	.63
Item 12 – GS	3.54	0.78	.42	.37	.55	.60	.51	.51	.57
Item 13 – GS	3.57	0.81	.46	.31	.55	.58	.48	.36	.47
Item 14 – GS	3.81	0.77	.50	.43	.54	.59	.44	.46	.48
Item 15 – GS	3.58	0.78	.46	.40	.56	.57	.51	.45	.52

Notes. N = 107 to 108. Correlations with $r \geq |.19|$ are significant at $p < .05$. Correlations with $r \geq |.25|$ are significant at $p < .01$. SA = self-appraisal. GI = gathering information. GS = goal selection.

Table T3, continued

Work-family Decision-making Self-efficacy Item Intercorrelations for Time 3

	8	9	10	11	12	13	14
Item 1 – SA							
Item 2 – SA							
Item 3 – SA							
Item 4 – SA							
Item 5 – SA							
Item 6 – GI							
Item 7 – GI							
Item 8 – GI							
Item 9 – GI	.63						
Item 10 – GI	.74	.70					
Item 11 – GS	.59	.57	.58				
Item 12 – GS	.61	.56	.65	.79			
Item 13 - GS	.50	.50	.49	.81	.87		
Item 14 – GS	.47	.50	.51	.65	.68	.67	
Item 15 – GS	.55	.55	.58	.81	.88	.86	.78

Appendix U

Results of CFA for Work-family Decision-making Self-efficacy Items

	N	χ^2	*Df*	*P*	Comparative Fit Index (CFI)	Root mean square error of approximation (RMSEA)
Time 1	105	128.09	79	.00	.97	.08
Time 2	101	107.78	79	.02	.98	.06
Time 3	83	137.10	82	.00	.95	.09

Appendix V
Role-planning Knowledge Items

Instructions: Please answer the following questions about your career and family plans.

1 = Strongly disagree
2 = Disagree
3 = Neither agree nor disagree
4 = Agree
5 = Strongly agree

1. I don't know how to plan for combining my medical career and my family.
2. Figuring out how to balance my medical career and my family confuses me because I don't feel I know enough about myself or about the stresses involved in balancing these roles.
3. I can't understand how some people can be so certain about how to successfully manage career and family responsibilities.
4. When it comes to combining my medical career with my family, I can't seem to make up my mind how to do it successfully.
5. It's easy to be certain how to manage my future medical career and family obligations in ways that are realistic for me (reverse-coded).
6. I have little or no idea of what being both a doctor and a parent will be like.
7. I don't know whether my plans for combining my medical career and my family will allow me to be the kind of person I want to be.
8. I'm very clear on how to plan for combining my medical career and family responsibilities (reverse-coded).
9. I don't know whether my plans for combining my medical career with my family are realistic.
10. I know a lot of strategies for combining a family with a career in a way that minimizes the stress involved (reverse-coded)

Appendix W

Role-planning Knowledge Item Intercorrelations

Table W1

Role-planning Knowledge Item Intercorrelations for Time 1

	Mean	*sd*	1	2	3	4	5
1. Item 1	2.97	1.06					
2. Item 2	2.85	1.17	.64				
3. Item 3	2.87	1.15	.68	.63			
4. Item 4	2.75	1.06	.64	.60	.72		
5. Item 5	3.32	0.86	.40	.37	.52	.51	
6. Item 6	3.35	1.15	.47	.45	.35	.29	.33
7. Item 7	3.05	1.16	.51	.45	.50	.59	.45
8. Item 8	3.47	0.96	.62	.53	.59	.52	.55
9. Item 9	3.32	0.98	.33	.28	.36	.41	.34
10. Item 10	3.32	0.99	.59	.42	.46	.42	.39

Note. N = 106 to 108. Correlations with $r \geq |.19|$ are significant at $p < .05$. Correlations with $r \geq |.25|$ are significant at $p < .01$.

Table W1, continued

Role-planning Knowledge Item Intercorrelations for Time 1

	6	7	8	9
1. Item 1				
2. Item 2				
3. Item 3				
4. Item 4				
5. Item 5				
6. Item 6				
7. Item 7	.32			
8. Item 8	.52	.51		
9. Item 9	.24	.58	.35	
10. Item 10	.41	.33	.53	.27

Table W2

Role-planning Knowledge Item Intercorrelations for Time 2

	Mean	*sd*	1	2	3	4	5
1. Item 1	2.49	0.91					
2. Item 2	2.66	1.07	.65				
3. Item 3	2.78	1.04	.55	.57			
4. Item 4	2.70	1.05	.66	.62	.71		
5. Item 5	3.22	0.88	.41	.30	.32	.40	
6. Item 6	3.13	1.14	.48	.55	.43	.53	.26
7. Item 7	2.90	1.12	.55	.48	.58	.65	.39
8. Item 8	3.31	0.88	.43	.32	.23	.31	.51
9. Item 9	3.26	1.03	.45	.37	.49	.60	.40
10. Item 10	3.09	1.01	.45	.45	.31	.40	.38

Note. N = 106 to 108.Correlations with $r \geq |.19|$ are significant at $p < .05$. Correlations with $r \geq |.25|$ are significant at $p < .01$.

Table W2, continued

Role-planning Knowledge Item Intercorrelations for Time 2

	6	7	8	9
1. Item 1				
2. Item 2				
3. Item 3				
4. Item 4				
5. Item 5				
6. Item 6				
7. Item 7	.43			
8. Item 8	.25	.39		
9. Item 9	.46	.63	.30	
10. Item 10	.48	.28	.40	.36

Table W3

Role-planning Knowledge Item Intercorrelations for Time 3

	Mean	*sd*	1	2	3	4	5
1. Item 1	2.43	0.94					
2. Item 2	2.49	1.02	.74				
3. Item 3	2.56	1.10	.60	.51			
4. Item 4	2.59	1.01	.71	.63	.67		
5. Item 5	3.07	0.88	.43	.39	.51	.43	
6. Item 6	3.09	1.23	.48	.47	.39	.38	.36
7. Item 7	2.88	1.05	.60	.42	.54	.63	.31
8. Item 8	3.13	0.91	.52	.46	.55	.54	.71
9. Item 9	3.23	0.99	.45	.34	.52	.63	.42
10. Item 10	2.96	0.93	.53	.52	.40	.44	.49

Note. N = 89 to 91. Correlations with $r \geq |.21|$ are significant at $p < .05$. Correlations with $r \geq |.27|$ are significant at $p < .01$.

Table W3, continued

Role-planning Knowledge Item Intercorrelations for Time 3

	6	7	8	9	
1. Item 1					
2. Item 2					
3. Item 3					
4. Item 4					
5. Item 5					
6. Item 6					
7. Item 7		.46			
8. Item 8		.49	.40		
9. Item 9		.40	.65	.56	
10. Item 10		.55	.45	.53	.45

Appendix X

Factor Loadings for Role-Planning Knowledge Items

Table X1

Factor Loadings for Time 1 Role-Planning Knowledge Items

	Factor 1	Factor 2
Item 1	0.79	0.31
Item 2	0.68	
Item 3	0.69	0.41
Item 4	0.58	0.53
Item 5	0.47	0.41
Item 6	0.55	
Item 7	0.32	0.78
Item 8	0.70	0.35
Item 9		0.65
Item 10	0.64	

Notes. Two factors were extracted using principal axis factor analysis with a varimax rotation. Factor loadings less than |.30| are not shown.

Table X2

Factor Loadings for Time 2 Role-Planning Knowledge Items

	Factor 1	Factor 2
Item 1	0.65	0.42
Item 2	0.67	
Item 3	0.76	
Item 4	0.85	
Item 5		0.60
Item 6	0.57	
Item 7	0.68	0.31
Item 8		0.76
Item 9	0.61	
Item 10	0.35	0.46

Notes. Two factors were extracted using principal axis factor analysis with a varimax rotation. Factor loadings less than |.30| are not shown.

Appendix Y

Demographics items

1. What is your gender
    a. Male
    b. Female

2. How old are you?
    a. 22 or younger
    b. 23 – 24
    c. 25 – 26
    d. 27 – 28
    e. 29 or older

3. What is your current marital status?
    a. Never married
    b. Currently married
    c. Divorced or separated
    d. Widowed
    e. Long-term live-in relationship (for example, common law marriage, same sex partnership)

4. Are you currently in a committed, romantic relationship?
    a. Yes
    b. No

5. Which medical school do you attend and what year are you?
    a. COM 1st year
    b. COM 2nd year
    c. COM 3rd year
    d. COM 4th year
    e. CHM 1st year
    f. CHM 2nd year
    g. CHM 3rd year
    h. CHM 4th year

6. What is your current parental status?
    a. I have never had any children
    b. I have children that live with me
    c. I have children that do not live with me (for example, other parent has full custody, gave up child for adoption, children are grown)

7. How old is your youngest child?
    a. I do not have children
    b. 0 – 5 years old
    c. 6 – 10 years old
    d. 11 – 15 years old
    e. 16 or older

8. What ethnicity do you consider yourself to be?
    a. American Indian or Alaskan native
    b. Asian
    c. Black / African American
    d. Hispanic
    e. Native Hawaiian or other Pacific Islander
    f. White/Caucasian/Not of Hispanic origin
    g. Multi-racial
    h. Other: _____

Appendix Z
Core Self-evaluations Items

Instructions: Please indicate whether you agree or disagree with the following statements.

1 = Strongly disagree
2 = Disagree
3 = Neither agree nor disagree
4 = Agree
5 = Strongly agree

1. I am confident I get the success I deserve in life.
2. Sometimes I feel depressed (reverse-coded).
3. When I try, I generally succeed.
4. Sometimes when I fail I feel worthless (reverse-coded).
5. I complete tasks successfully.
6. Sometimes, I do not feel in control of my school work (reverse-coded).
7. Overall, I am satisfied with myself.
8. I am filled with doubts about my competence (reverse-coded).
9. I determine what will happen in my life.
10. I do not feel in control of my success in medical school (reverse-coded).
11. I am capable of coping with most of my problems.
12. There are times when things look pretty bleak and hopeless to me (reverse-coded).

Appendix AA

Core Self-evaluations Item Intercorrelations

	Mean	*sd*	1	2	3	4	5	6
1. Item 1	4.01	0.67						
2. Item 2	2.56	0.97	.18					
3. Item 3	4.27	0.57	.29	.18				
4. Item 4	3.01	1.08	.23	.47	.35			
5. Item 5	4.08	0.55	.36	.16	.40	.40		
6. Item 6	2.73	1.12	.12	.39	.26	.52	.34	
7. Item 7	4.05	0.82	.42	.26	.21	.44	.54	.32
8. Item 8	3.23	1.09	.17	.30	.32	.47	.45	.39
9. Item 9	3.79	0.79	.35	.14	.15	.22	.28	.14
10. Item 10	3.86	0.91	.30	.15	.14	.22	.47	.45
11. Item 11	4.00	0.74	.40	.29	.31	.42	.42	.36
12. Item 12	3.52	1.08	.32	.50	.26	.59	.40	.45

Notes. N = 106 to 108. Correlations with $r \geq |.19|$ are significant at $p < .05$. Correlations with $r \geq |.25|$ are significant at $p < .01$.

	7	*8*	9	10	11	
1. Item 1						
2. Item 2						
3. Item 3						
4. Item 4						
5. Item 5						
6. Item 6						
7. Item 7						
8. Item 8		.48				
9. Item 9		.40	.26			
10. Item 10		.50	.31	.26		
11. Item 11		.55	.28	.44	.47	
12. item 12		.43	.38	.20	.43	.47

Appendix BB

CFA for Core Self-evaluation Items

	N	χ^2	*Df*	*P*	Comparative Fit Index (CFI)	Root mean square error of approximation (RMSEA)
CSE	104	153.89	80	.00	.91	.09

Appendix CC
Role-importance Items

Work role-importance

1. Having work / a career that is interesting and exciting to me is my most important life goal.
2. I expect my job / career to give me more real satisfaction than anything else I do.
3. My life would seem empty if I didn't have a job / career.
4. If I chose not to work, I would regret it.
5. Although having a job / career requires many sacrifices, the benefits of working are worth it all.

Family role-importance

1. Although having a family requires many sacrifices, the love and enjoyment of family of one's own are worth it.
2. If I chose not to have a family, I would regret it.
3. It is important to me that I will be an effective family member.
4. The whole I idea of having a family and caring for them is not attractive to me (reverse-coded).
5. My life would be empty if I never had a family.

Appendix DD

Role-importance Item Intercorrelations

	Mean	*sd*	1	2	3	4	5
1. W Item 1	3.13	1.22					
2. W Item 2	2.60	1.04	.57				
3. W Item 3	3.30	1.11	.28	.41			
4. W Item 4	3.64	1.03	.07	.19	.50		
5. W Item 5	3.82	0.78	.09	.38	.29	.26	
6. F Item 1	4.50	0.69	-.25	-.31	-.09	-.12	-.08
7. F Item 2	4.11	1.16	-.10	-.19	.06	.10	-.11
8. F Item 3	4.57	0.59	-.09	-.24	.03	.07	.03
9. F Item 4	4.79	0.73	-.18	-.15	.09	.08	.13
10. F Item 5	3.89	1.28	-.06	-.15	.20	.12	-.08

Notes. N = 105 to 108. Correlations with $r \geq |.19|$ are significant at $p <$ .05. Correlations with $r \geq |.25|$ are significant at $p < .01$. W = work. F = family.

	6	7	8	9
1. W Item 1				
2. W Item 2				
3. W Item 3				
4. W Item 4				
5. W Item 5				
6. F Item 1				
7. F Item 2	.49			
8. F Item 3	.63	.48		
9. F Item 4	.56	.47	.50	
10. F Item 5	.48	.54	.37	.36

Appendix EE

Factor Loadings for Role-importance Items

Table EE1

Factor Loadings for Role-importance Items

	Factor 1	Factor 2	Factor 3	Factor 4
1. W Item 1		0.65		
2. W Item 2		0.81		0.34
3. W Item 3		0.35	0.63	
4. W Item 4			0.74	
5. W Item 5				0.65
6. F Item 1	0.82			
7. F Item 2	0.68			
8. F Item 3	0.70			
9. F Item 4	0.68			
10. F Item 5	0.63			

Notes. Three factors were extracted using principal axis factor analysis with a varimax rotation. Factor loadings less than | .30 | are not shown. W = work. F = family.

Table EE2

Factor Loadings for Role-importance Items Forcing Two Factors

	Factor 1	Factor 2
1. W Item 1		0.45
2. W Item 2	-0.30	0.70
3. W Item 3		0.71
4. W Item 4		0.46
5. W Item 5		0.46
6. F Item 1	0.78	
7. F Item 2	0.69	
8. F Item 3	0.70	
9. F Item 4	0.68	
10. F Item 5	0.63	

Notes. Two factors were forced using principal axis factor analysis with a varimax rotation. Factor loadings less than | .30 | are not shown. . W = work. F = family.

Appendix FF

Work-family Information Gathering Time 2 Items

Instructions: Please indicate how frequently you have engaged in the following behaviors using the scale provided below.

1 = Never
2 = Rarely
3 = Occasionally
4 = Often
5 = Frequently

1. Since you entered medical school, how frequently have you researched information related to balancing your medical career with your family life on the internet?

2. Since you entered medical school, how frequently have you spent time talking to your friends or family about balancing your medical career with your family life?

3. Since you entered medical school, how frequently have you spent time talking with doctors, professors, or administrators about balancing your medical career with your family life?

4. Since you entered medical school, how frequently have you spent time thinking about balancing your medical career with your family life?

5. Since you entered medical school, how frequently have you used additional resources (not mentioned here) to gather information about balancing your medical career with your family life (e.g., books, magazines?)

Appendix GG

Work-family Information Gathering Time 2 Item Intercorrelations

	Mean	*sd*	1	2	3	4
1. Item 1	2.09	1.08				
2. Item 2	3.41	1.07	.42			
3. Item 3	2.81	1.11	.34	.56		
4. Item 4	3.69	1.11	.43	.66	.49	
5. Item 5	2.17	1.08	.81	.42	.34	.43

Notes. N = 108. Correlations with $r \geq |.19|$ are significant at $p <$ .05. Correlations with $r \geq |.25|$ are significant at $p < .01$.

Appendix HH

Work-family Information Gathering Time 3 Items

1. Did you receive an email about work-family issues facing medical students?
    a. Yes
    b. No
    c. I don't know

2. Did you read the email about work-family issues facing medical students?
    a. No
    b. Yes, but I didn't read it
    c. Yes, and I read some of it
    d. Yes, and I read all of it

3. If you received an email, the email also included a link to find out more information on a website. Did you visit that website?
    a. Yes
    b. No
    c. I did not receive an email with a link

4. Approximately how much time did you spend visiting the website?
    a. I did not visit the website
    b. Less than 5 minutes
    c. 5 – 10 minutes
    d. 10 – 15 minutes
    e. 15 – 20 minutes
    f. More than 20 minutes

5. Over the past two weeks, how much time did you spend research information related to balancing your medical career with your family life on the internet?
    a. None
    b. Less than 1 hour
    c. 1 – 2 hours
    d. 3 – 4 hours
    e. More than 5 hours

6. Over the past two weeks, how much time did you spend talking to your friends or family about balancing your medical career with your family life?
    a. None
    b. Less than 1 hour
    c. 1 – 2 hours
    d. 3 – 4 hours
    e. More than 5 hours

7. Over the past two weeks, how much time did you spend talking with doctors, professors, or administrators about balancing your medical career with your family life?
    a. None
    b. Less than 1 hour
    c. 1 – 2 hours
    d. 3 – 4 hours
    e. More than 5 hours

8. Over the past two weeks, how much time did you spend thinking about balancing your medical career with your family life?
    a. None
    b. Less than 1 hour
    c. 1 – 2 hours
    d. 3 – 4 hours
    e. More than 5 hours

9. Over the past two weeks, how much time did you spend using additional resources (not mentioned here) to gather information about balancing your medical career with your family life (e.g., books, magazines)?
    a. None
    b. Less than 1 hour
    c. 1 – 2 hours
    d. 3 – 4 hours
    e. More than 5 hours

10. What additional information did you use?

Appendix II

Work-family Information Gathering Time 3 Item Intercorrelations

	Mean	*sd*	1	2	3	4
1. Item 5	1.64	0.78				
2. Item 6	2.30	1.14	.25			
3. Item 7	1.77	0.86	.30	.47		
4. Item 8	2.80	1.34	.26	.71	.43	
5. Item 9	1.33	0.56	.30	.18	.19	.25

Note. N = 90 to 91. Correlations with $r \geq |.21|$ are significant at $p < .05$. Correlations with $r \geq |.27|$ are significant at $p < .01$.

Appendix JJ

Factor Loadings for Work-family Information Gathering Time 3

	Factor 1	Factor 2
Item 5		0.68
Item 6	0.90	
Item 7	0.46	0.35
Item 8	0.76	
Item 9		0.41

Notes. Two factors were forced using principal axis factor analysis with a varimax rotation. Factor loadings less than |.30| are not shown. .

Appendix KK

Discrimination Among Self-efficacy-related Scales

Table KK1

Factor loadings of WFRPK, CDSE, and WFDMSE Items

	Factor				
	1	2	3	4	5
T1wfrpk3	.771				
T1wfrpk1	.730				
T1wfrpk4	.720				
T1wfrpk2	.705				
T1wfrpk8	.630				
T1wfrpk5	.541				
T1wfrpk7	.513				
T1wfrpk10	.462				
T1wfdmse8		.862			
T1wfdmse10		.760			
T1wfdmse7		.760			
T1wfdmse6		.739			
T1wfdmse9		.672			
T1cdse11			.814		
T1cdse2			.690		
T1cdse14			.620		
T1cdse12			.588		
T1cdse13			.565		
T1cdse15			.520		.483
T1wfdmse2				.827	
T1wfdmse1				.726	
T1wfdmse5				.646	
T1wfdmse3				.571	
T1wfdmse4				.476	
T1cdse5					.690
T1cdse4					.597
T1cdse3			.421		.516
T1cdse1					.499
T1wfrpk9					

Notes. Principal axis factor analysis with a varimax rotation was used. Factor loadings less than .40 are suppressed. WFRPK = Work-family role-planning knowledge. CDSE = Career decision self-efficacy. WFDMSE = Work-family decision-making self-efficacy. Continued on next page.

Table KK1, continued

Factor loadings of WFRPK, CDSE, and WFDMSE Items

	Factor			
	6	7	8	9
T1wfdmse12		.699		
T1wfdmse13		.679		
T1wfdmse11		.635		
T1wfdmse15		.602		
T1wfdmse14	.427	.460		
T1cdse8			.801	
T1cdse6			.506	
T1cdse7			.477	
T1cdse10				
T1wfrpk6				.468
T1cdse9				

Notes. Principal axis factor analysis with a varimax rotation was used. Factor loadings less than .40 are suppressed. WFRPK = Work-family role-planning knowledge. CDSE = Career decision self-efficacy. WFDMSE = Work-family decision-making self-efficacy.

Table KK2

Factor loadings of CSE, CDSE, and WFDMSE Items

	Factor								
	1	2	3	4	5	6	7	8	9
T1cdse11	.840								
T1cdse14	.646								
T1cdse2	.635								
T1cdse12	.559								
T1cdse13	.538								
T1cdse15	.514						.444		
T1cdse9	.433								
T1wfdmse8		.841							
T1wfdmse10		.780							
T1wfdmse9		.756							
T1wfdmse6		.716							
T1wfdmse7		.715							
T1wfdmse2			.759						
T1wfdmse5			.754						
T1wfdmse1			.695						
T1wfdmse3			.669						
T1wfdmse4			.524						
T1cse9									
T1cse5				.639					
T1cse7				.612					
T1cse10				.612					
T1cse11				.548					
T1cse1				.539					
T1cse3									
T1wfdmse12					.782				
T1wfdmse13					.732				
T1wfdmse11					.668				
T1wfdmse15					.643				
T1wfdmse14					.440				

Notes. Principal axis factor analysis with a varimax rotation was used. Factor loadings less than .40 are suppressed. WFRPK = Work-family role-planning knowledge. CDSE = Career decision self-efficacy. WFDMSE = Work-family decision-making self-efficacy. Continued on next page.

Table KK2, continued

Factor loadings of CSE, CDSE, and WFDMSE Items

	Factor								
	1	2	3	4	5	6	7	8	9
T1cse4						.764			
T1cse2						.696			
T1cse12						.610			
T1cse6						.591			.427
T1cse8						.462			
T1cdse5							.710		
T1cdse3	.459						.590		
T1cdse4							.548		
T1cdse1							.440		
T1cdse8								.753	
T1cdse7								.548	
T1cdse10								.509	
T1cdse6								.506	

Notes. Principal axis factor analysis with a varimax rotation was used. Factor loadings less than .40 are suppressed. WFRPK = Work-family role-planning knowledge. CDSE = Career decision self-efficacy. WFDMSE = Work-family decision-making self-efficacy.

Appendix LL
Manipulation Check Items

Instructions: For each of the following topics, indicate whether you believe that this topic was or was not included in the presentations that you just viewed.

1. Determining what your ideal medical specialty will be.
    a. Definitely not included
    b. Probably not included
    c. No idea whether it was included or not
    d. Probably included
    e. Definitely included

2. Determining what your ideal balance between work and family would be.
    a. Definitely not included
    b. Probably not included
    c. No idea whether it was included or not
    d. Probably included
    e. Definitely included

3. Gathering information about a medical specialty you are interested in.
    a. Definitely not included
    b. Probably not included
    c. No idea whether it was included or not
    d. Probably included
    e. Definitely included

4. Gathering information about the work-family balance of a medical specialty you are interested in.
    a. Definitely not included
    b. Probably not included
    c. No idea whether it was included or not
    d. Probably included
    e. Definitely included

5. Selecting one medical specialty from a list of potential specialties that you are considering.
    a. Definitely not included
    b. Probably not included
    c. No idea whether it was included or not
    d. Probably included
    e. Definitely included

6. Selecting one medical specialty that will help you balance work and family from a list of potential specialties that you are considering.
    a. Definitely not included

b. Probably not included
c. No idea whether it was included or not
d. Probably included
e. Definitely included

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