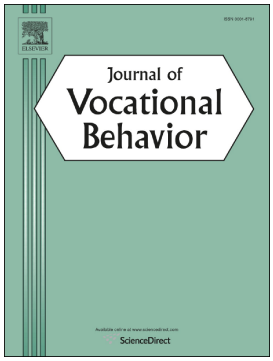

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Running Head: FORMAL MENTORING, WFC, JOB RESOURCES, WORKLOAD

Role of formal mentoring in protégés' work-to-family conflict: A double-edged sword

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1. Introduction

Mentoring has become a prevalent practice in human resource management because of its benefits to protégés in various work domains (e.g., performance and career satisfaction) (Liu, Wang, & Wayne, 2015; Underhill, 2006). Recently, scholars have attempted to examine whether mentoring benefits can be extended from work domains to non-work domains (e.g., work-to-family conflict, WFC) as the demographics of employees change rapidly, with escalating numbers of dual-earner couples, single parents, and female employees (Greenhaus & Singh, 2007). Several studies based mostly on informal mentoring provided preliminary evidence that mentoring relationships may reduce protégés' WFC (de Janasz, Behson, Jonsen, & Lankau, 2013; Underhill, 2006). However, scholars have called for more research to examine the role of mentorship formality in protégés' work-family interference because it is well known that there are differences between formal and informal mentoring, and formal mentoring functions have been overlooked in previous studies (Greenhaus & Singh, 2007; Haggard, Dougherty, Turban, & Wilbanks, 2011; Nielson, Carlson, & Lankau, 2001).

Unlike informal mentoring relationships which are developed through mutual attraction (Kram, 1985), formal mentoring relationships are established with some involvement from organizations (e.g., the organization creates the pairing or provides some organizational resources to support the mentoring relationship). Although mentoring functions are resources for protégés (de Janasz et al., 2013; Nielson et al., 2001), protégés may also perceive them as work demands as this formal relationship was initiated with organizational effort to assist them to better adjust to the organization (Greenhaus & Powell, 2006). This

may raise an interesting paradox for protégés in formal mentoring relationships when they perceive support from mentors not only as a resource but also a demand from their organizations. That is, support from mentors may be a double-edged sword for protégés in formal mentoring relationships.

In order to better reconcile these inconsistencies, we use the job demands-resources (JD-R) model as an overarching framework for developing our hypotheses (Bakker, Demerouti, & Dollard, 2008; Bakker, van Veldhoven, & Xanthopoulou, 2010). Specifically, we propose that formal mentoring support may impact protégés' WFC through two paradoxical mediation mechanisms. On the one hand, formal mentoring functions may translate into increased job resources including skills, perspectives, psychological resources and social capital, which can reduce the possibility of WFC. On the other hand, protégés may perceive that support from formal mentors increases their job demands (i.e., workload) (Bakker et al., 2008) and subsequently feel more WFC.

Additionally, considering the significance of the individual differences of work and family role values in the formation of WFC (Carr, Boyar, & Gregory, 2008; Shockley & Allen, 2015), we argue that the mixed effects of formal mentoring functions on WFC may depend on protégés' work-family centrality, which refers to a value judgment about the relative importance of work and family domains (Carr et al., 2008). Specifically, we propose that the impact of formal mentoring functions received on protégés' WFC via job resources will be stronger when protégés value their work relatively more than family, while the influence of formal mentoring functions received on protégés' WFC via workload will be stronger among protégés who value their family relatively more than work. By

investigating this dual-path model with the moderating role of work-family centrality, our study attempts to broaden our understanding of two faces of formal mentoring, as well as the dynamic process through which formal mentoring exerts its effect on protégés' WFC.

1.1. Job demands-resources (JD-R) model

According to the job demands-resources (JD-R) model, work conditions of every occupation can be classified into two broad categories, including job demands and job resources (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Job demands refer to "those physical, social or organizational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs", such as workload. Job resources refer to "those physical, psychological, social or organizational aspects of the job that may do any of the following: (a) be functional in achieving work goals; (b) reduce job demands and the associated physiological and psychological costs; (c) stimulate personal growth and development" (Demerouti et al., 2001, p. 501), for instance, psychological resources and social capital. The JD-R model has been widely applied to studies of employees' stress, well-being and work-family issues (Bakker et al., 2008; Bakker et al., 2010; Hall, Dollard, Tuckey, Winefield, & Thompson, 2010).

Previous research has suggested that specific job demands and job resources depend on the context under study (Nahrgang, Morgeson, & Hofmann, 2011; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). In the present study, we focused on four types of specific job resources (i.e., skills, perspectives, psychological resources and social capital) and one job demand (i.e., workload) that align well with the mentoring context (Greenhaus & Singh,

2007).

1.2. Formal mentoring functions, job resources and protégés' WFC

Mentoring is a developmental relationship between a senior, more-experienced employee (mentor) and a junior, less-experienced individual (protégé) whereby the mentor provides many functions, such as vocational support, psychosocial support, and role modeling, to help the protégé's career development (Scandura & Ragins, 1993). Compared to informal mentoring based on mutual attraction, formal mentoring is typically matched and developed by organizations (Allen, Eby, & Lentz, 2006). Although mentors in formal mentoring programs tend to provide fewer functions than those in informal mentoring relationships, it still has considerable benefits for protégés' career outcomes and has been increasingly popular within various organizations in recent years (Chen, Liao, & Wen, 2014; Liu et al., 2015).

Previous research has indicated that skill-based learning, cognitive learning, affective learning and social networks are the four proximal outcomes of mentoring (Wanberg, Welsh, & Hezlett, 2003). Accordingly, Greenhaus and Singh (2007) proposed four specific resources that are the most likely to be enhanced by mentors to reduce protégés' WFC, including skills, perspectives, psychological resources, and social capital. Skills involve a series of work-related abilities such as task-cognitive and interpersonal skills (Greenhaus & Powell, 2006). A great deal of previous research has proved that formal mentors can facilitate protégés' skill development through personal learning (Allen & OBrien, 2006). Perspectives refer to the ways of perceiving and handling situations (Ruderman, Ohlott, Panzer, & King, 2002). Formal mentors are able to help protégés hold holistic, broad and

positive perspectives on themselves and the world because these selected mentors usually have rich work and life experiences. Psychological resources relate to positive psychological capital such as self-efficacy, self-esteem, and optimism (Luthans, Avolio, Avey, & Norman, 2007). Formal mentoring is perceived as an effective approach for developing employees' positive psychological capital because it provides an environment for individuals to enhance self-confidence and to address difficulties (Luthans, Vogelgesang, & Lester, 2006). Previously, scholars indicated a positive relationship between formal mentoring and protégés' self-esteem (Waters, McCabe, Kiellerup, & Kiellerup, 2002). Additionally, Greenhaus and Singh (2007) proposed that mentoring relationships enable protégés to acquire two important social capital resources, including information and influence. In line with the above statement, prior studies (e.g., Weinberg & Lankau, 2011) have demonstrated that formal mentoring provides useful information and advice about protégés' jobs, careers and personal lives and helps them gain access to influential or powerful people. In sum, individuals with more formal mentoring support are more likely to gain various job resources.

Work-to-family conflict refers to a form of interrole conflict in which participation in family role is made more difficult by virtue of participation in the work role (Greenhaus & Beutell, 1985). A number of previous studies have shown that job resources would effectively reduce employees' WFC (Kossek, Pichler, Bodner, & Hammer, 2011). This can be explained through conservation of resources (COR) theory (Hobfoll, 2001). Drawing upon COR theory, a gain spiral effect can account for the fact that individuals with more resources were more capable of gain, and an initial resource gain caused further gain. In a

mentoring situation, the protégés who possess more job resources from formal mentoring can accomplish work tasks more efficiently and effectively and thus have more time and energy to carry out family role requirements. Such a process would result in a reduction of protégés' WFC. Therefore, formal mentoring functions can reduce protégés' WFC by helping protégés gain various job resources. Accordingly, we hypothesize that:

Hypothesis 1. The extent of formal mentoring functions received positively relates to protégés' perceived job resources, which in turn negatively relate to their WFC.

1.3. Formal mentoring functions, workload and protégés' WFC

Although formal mentors can be regarded as providers of various job-related resources for protégés, the unique characteristics of formal mentors' mentoring functions also increase protégés' job demands (e.g., workload) (Spector & Jex, 1998). This increase may be due to the following reasons: first, given that one of the main purposes of formal mentoring is to advance protégés' work-related competence in a short period (Wang, Tomlinson, & Noe, 2010), formal relationships usually have a set of program requirements (Baugh & Fagenson-Eland, 2007) such as a required frequency of mentoring meetings, protégés' skill requirements and constant evaluation of mentoring processes to ensure the success of formal mentoring programs. Under such circumstances, protégés may need to spend more time and effort at work and, consequently, have an increased workload. Second, as formal mentoring programs are usually assigned by managers, the visibility of mentor-protégé relationships is increased within organizations that use them (Baugh & Fagenson-Eland, 2007; Nielson et al., 2001). A protégé's performance would be regarded as

a reflection of the mentor's ability (Ragins & Scandura, 1994). To maintain good reputations, a mentor may assign more work tasks to his or her protégé that are intended to develop the protégé's competency, which eventually increases the protégé's workload. Furthermore, as mentors devote their time and effort to developing their protégés' competencies, they would also increase the protégés' work performance standards. This would also increase the protégés' workloads. Third, considering that protégés gain more benefits than mentors in formal mentoring relationships (Russell & Adams, 1997), they may feel more obligation to return the favors of their mentors following the reciprocity rule within interpersonal interactions (Ensher, Thomas, & Murphy, 2001; Yang et al., 2011). In order to maintain positive relationships with a mentor, a protégé might proactively handle some work tasks and even personal affairs for his or her mentor (Eby, Durley, Evans, & Ragins, 2008). In such situations, the protégé's workload would be increased. Similarly, Jiang, Law, and Sun (2014) found that high quality of leader-member exchange (LMX) increases employee job demands because individuals with high LMX feel as though they have more duties.

Recently, scholars have begun to distinguish between two types of job demands: challenging demands and hindrance demands. Challenging demands are aspects of a job that promote personal growth and future gains, whereas hindrance demands are appraised as burdens on individuals' abilities and obstacles to individual growth (Crawford, LePine, & Rich, 2010). Although workload is often considered a type of challenging demand that has potential benefits for work-related outcomes, it may turn into a hindrance demand when fulfilling work tasks requires great effort (Meijman, Mulder, Drenth, & Thierry, 1998). For

protégés who lack work experiences and job skills, it would be quite difficult to deal with work and family issues simultaneously. Facing a substantial workload, protégés are bound to spend much time and energy at work, which limits their ability to maintain family responsibilities effectively and ultimately leads to WFC. In fact, numerous studies have found a positive relationship between employees' workloads and WFC (Bakker et al., 2008; Yang, Chen, Choi, & Zou, 2000). In terms of job demands, formal mentoring is likely to increase protégés' WFC through its positive effect on workload. Therefore, we propose that:

Hypothesis 2. The extent of formal mentoring functions received positively relates to protégés' perceived workload, which in turn positively relates to their WFC.

1.4. Moderating role of protégés' work-family centrality

Literature examining work-family interface suggests that in addition to work and family conditions, the extent to which an individual values work relative to family also contributes to his or her perceptions of WFC (Carlson & Kacmar, 2000). Carr et al. (2008) suggest that work-family centrality reflects an individual's judgment regarding the relative importance of work versus family in one's life. Scholars have argued that this is a relative concept that directly reflects the relative importance of one aspect (i.e., work) over another (i.e., family) (Carlson & Kacmar, 2000; Carr et al., 2008).

Previous research has indicated that an individual's values will affect his or her cognition, attitudes, and behaviors (Paullay, Alliger, & Stone-Romero, 1994). For instance, individuals who value work more than family are likely to pay more attention to their work

roles than family roles. The current study further examined the effects of a potential moderator—protégés' work-family centrality—in terms of the process of how formal mentoring support impacts protégés' WFC through job resources and demands. Specifically, protégés who consider work as more important than family are more sensitive about seeking and utilizing support from the work domain compared to the family domain. Formal mentoring as a developmental and supportive relationship in the workplace could meet the work needs of these protégés who value work more important than family. As a result, formal mentoring may have a stronger impact on job resources, which in turn reduce protégés' WFC. That is, the indirect effect of the extent of formal mentoring functions received on protégés' WFC via job resources would be amplified when protégés value work more than family.

On the contrary, the protégés who value family more than work are willing to spend more time and energy on family affairs than work issues. Formal mentoring support aimed at advancing protégés' work skills and career growth may contradict the family needs of these protégés who value family more than work. Consequently, these protégés are more likely to associate formal mentoring functions with job demands, such as increased workload, which has a subsequent negative influence on WFC. That is, the indirect effect of the extent of formal mentoring functions received on protégés' WFC through workload will be stronger when protégés value family more than work. Therefore, we propose that:

Hypothesis 3. Protégés' work-family centrality moderates the indirect effect of the extent of formal mentoring functions received on protégés' WFC via job resources, such that the indirect effect is stronger for protégés who value work more than family.

Hypothesis 4. Protégés' work-family centrality moderates the indirect effect of the extent of formal mentoring functions received on protégés' WFC via workload, such that the indirect effect is stronger for protégés who value family more than work.

2. Method

2.1. Participants

The participants in this study consisted of newly hired machine operators who were taking part in nine-month formal mentoring programs in a machinery and equipment manufacturing group corporation located in central China. Before the mentorship started, experienced and responsible employees were selected as mentors and asked to sign mentoring contracts with their protégés. According to the contracts, mentors were needed to provide career guidance and support to their protégés using field demonstrations and idea exchanges. To guarantee mentoring effectiveness, the corporation asked each mentor to direct only one protégé, and pairs were to spend at least four hours together every week. A protégé's job performance determined to some extent whether mentors could receive future promotions.

With the assistance of HR managers, 350 questionnaire packages—consisting of a cover letter, a protégé questionnaire and a return envelope—were distributed to protégés. Based on previous WFC research (Byron, 2005), respondents in the current study mainly focused on married or single employees who were living with one or more partners (e.g., a family member, girlfriend, or boyfriend). Respondents were promised confidentiality and assured that the survey would be used only for academic purposes. To reduce common method bias, a two-wave survey was conducted in six-month intervals. Approximately 3 months after the

mentoring relationship began (Time 1), protégés were asked to report about control variables, the independent variable (i.e., formal mentoring functions) and the moderating variable (i.e., work-family centrality). In total, 307 valid questionnaires were returned, yielding a response rate of 86.6%. At the end of the mentoring program (Time 2), the participants reported on the mediator variables (i.e., job resources and workload) and the dependent variable (i.e., WFC). In total, our sample consisted of 193 protégés with an effective response rate of 62.9%. The sample included 63.2% male and 36.8% female protégés. Approximately 40.4% protégés were married and 59.6% protégés were living with other partners. The average age was 26.08 years. Additionally, only 10.4% of protégés were enrolled in technical secondary school; most of them had finished junior college (38.3%) or earned undergraduate degrees (40.4%).

2.2. Measures

All measures in the current study were well established in previous research. The questionnaires were translated from English to Chinese under a conventional back-translation procedure suggested by Brislin (1980) with two assistant professors in the management area. Unless otherwise indicated, participants answered on a five-point scale rating from 1 (strongly disagree) to 5 (strongly agree).

The extent of formal mentoring functions received. Protégés reported the extent of formal mentoring functions they perceived from their mentors on the 15-item Mentoring Functions Questionnaire (MFQ-15) developed by Scandura and Ragins (1993). The scale contained three dimensions, with six items for vocational support (e.g., “My mentor has placed me in important assignments”), five items for psychosocial support (e.g., “I consider

my mentor to be a friend"), and four items for role modeling (e.g., "I try to model my behavior after my mentor"). The result of second-order confirmatory factor analysis (CFA) supported the view of mentoring functions as a single overall construct composed of three distinct sub-dimensions (χ^2 = 191.23, *df* = 87, RMSEA = .07, CFI = .97, NFI = .96, NNFI = .97). Therefore, we averaged the 15 items to create an overall measure of formal mentoring functions. The Cronbach's reliability coefficients for each of the three dimensions were as follows: vocational support (.89), psychosocial support (.84), and role modeling (.90). And the Cronbach's reliability coefficient for formal mentoring functions was .93.

Job resources. Following Greenhaus and Singh (2007), we developed a measure of job resources that was more suitable in mentoring context. Specifically, they stated that job resources should include four factors: skills, perspectives, psychological resources, and social capital. We originally developed three items for each factor, in total twelve items for the job resources scale. Then, we used a sample from one Chinese manufacturing enterprise (N=108) to conduct an exploratory factor analysis (EFA). After removing three items with low loading (<.04), we were left with a nine-item scale of job resources with four factors[1]. The scale includes skills (two items: e.g., "I have learned many new work skills"), perspectives (two items: e.g., "I know how to use a 'holistic view' to think about my work

[1] A post hoc test was conducted to examine the discriminant validity of the measure of job resources, with a sample of 164 protégés in a chemical company in China. We examined the distinctiveness of our measure to measures of perceived organizational support (Lynch, Eisenberger, & Armeli, 1999; α = .95) and the quality of mentoring relationship (Allen & Eby, 2003; α = .89). The correlations provide preliminary evidence of discriminant validity: job resources with perceived organizational support *r* = .18, *p*< .05; with the quality of mentoring relationship *r* = .21, *p*< .01. CFA results also show all the measures are distinct because the three-factor measurement model fits the data well (χ^2 = 428.81, *df* = 206, RMSEA = .08, CFI = .95, NFI = .90, NNFI = .94) and was better than other alternative models.

and other people "), psychological resources (two items: e.g., "I am confident that I could handle most of situations"), and social capital (three items: e.g., "I can get a lot of useful information at work"; "I am able to gain access to influential people in the organizations"). The results of the confirmatory factor analysis (CFA) established the existence of a second-order job resources model in which the four first-order factors contributed to an overall job resources index (χ^2 = 65.93, *df* = 23, RMSEA = .09, CFI = .96, NFI = .95, NNFI =.94). Therefore, we averaged the nine items to create an overall measure of job resources. The Cronbach's reliability coefficients for each of the four dimensions were as follows: skills (.72), perspectives (.81), psychological resources (.76), and social capital (.81), whereas for job resources it was .88.

Workload. We used a 5-item Quantitative Workload Inventory (QWI) developed by Spector and Jex (1998) to assess protégés' workload. This scale assessed the extent to which the employee was required to work fast and hard, the quantity of work and the amount of free time. Sample items are: "How often does your job require you to work very hard?" and "How often does your job leave you with little time to get things done?" Protégés responded on a 5-point Likert scale that ranged from 1 (less than once per month) to 5 (several times per day). The Cronbach's alpha was .83.

Work-to-family conflict. A 5-item scale was used to assess WFC developed by Netemeyer, Boles, and McMurrian (1996). A sample item is, "The demands of my work interfere with my home and family life". The Cronbach's alpha was .88.

Work-family centrality. A 5-item scale developed by Carr et al. (2008) was used to measure protégés' work-family centrality. An example item is "Overall, I consider work to

be more central to my existence than family". This scale reflected the relative importance between work and family. A high score represented the view that work was more important than family; that is, work centrality was relatively high. Correspondingly, a low score meant that family was more important than work; that is, family centrality was relatively high. The Cronbach's alpha was .84.

Control variables. Following previous research (e.g., Cho & Allen, 2012), we controlled for the potential effects of protégés' demographic characteristics on WFC, including age, gender (1 = male, 2 = female), education level (1 = junior high school, 2 = technical secondary school, 3 = junior college, 4 = undergraduate, 5 = gradate or above), and marital status (1 = single but with one partner, 2 = married).

3. Results

3.1. Confirmatory factor analysis

Confirmatory factor analysis (CFA) was used to examine the discriminant validity of the five main variables in this study (i.e., formal mentoring, job resources, workload, work-to-family conflict, and work-family centrality). As Table 1 presents, the hypothesized five-factor model (χ^2 = 1618.37, *df* = 692, RMSEA = .08, CFI = .91, NFI = .85, NNFI =.91) fit the data significantly better than other alternative models. These results mean that there is a good discriminant validity among the five key variables used in the present study.

Insert Table 1 about here

3.2. Descriptive statistics

Table 2 displays the descriptive statistics, correlation, and reliabilities for all variables

used in the present study. The extent of formal mentoring functions received was positively related to job resources (r = .37, p < .001) and workload (r = .25, p < .001). Moreover, job resources were negatively related to protégés' WFC (r = -.22, p < .01), while workload was positively related to protégés' WFC (r = .23, p < .01).

Insert Table 2 about here

3.3. Testing the mediation hypotheses

We used Hayes's (2013) bootstrapping technique to simultaneously test the mediating roles of job resources and workload. After controlling for possible effects of protégés' demographic characteristics, the results (N = 5000) indicated that the mediating roles of both job resources (indirect effect = -.09, SE = .04, 95% CI [-.18, -.03]) and workload (indirect effect = .10, SE = .04, 95% CI [.03, .19]) on the relationship between the extent of formal mentoring functions received and protégés' WFC were significant because the 95% confidence intervals excluded zero. Thus, hypotheses 1 and 2 were supported.

3.4. Testing the moderation hypotheses

We hypothesized that work-family centrality separately moderated the indirect effect of the extent of formal mentoring functions received on protégés' WFC via job resources (H3) and workload (H4). To test these moderated effects, we used Model 7 in SPSS PROCESS (Hayes, 2013). The results (N = 5000) indicated that, (1) the indirect effect of the extent of formal mentoring functions received on protégés' WFC through job resources was moderated by work-family centrality because the index of moderated mediation was significant (B = -.09, SE = .04, 95% CI [-.19, -.03]) (Hayes, 2015). Specifically, the extent of formal mentoring functions received had a negative effect on protégés' WFC via job

resources for protégés who value work more than family (B = -.17, SE = .06, 95% CI [-.29, -.05]), but not for protégés with who value family more than work (B = -.03, SE = .03, 95% CI [-.11, .02]); (2) Similarly, the indirect effect of the extent of formal mentoring functions received on protégés' WFC through workload was moderated by work-family centrality (B = -.09, SE = .05, 95% CI [-.19, -.004]). Specifically, the extent of formal mentoring functions received had a positive effect on WFC via workload for protégés who value family more than work (B = .15, SE = .05, 95% CI [.07, .26]), but not for protégés who value work more than family (B = .02, SE = .05, 95% CI [-.07, .14]). Therefore, hypotheses 3 and 4 were supported.

3.5. Supplementary analyses

The direct relation between the extent of formal mentoring functions received and protégés' WFC was not significant in the present study, which implies the possibility of a curvilinear relationship between these two variables. It may be possible that the extent of formal mentoring functions received would be negatively associated with protégés' WFC to a point where job resources gained are enough to address the increase in job demands, but beyond a certain threshold level, the association will become positive. To examine the possible U-shaped relationship, we used the hierarchical regression to analyze the current data. Results indicated that the U-shaped relationship between the extent of formal mentoring functions and protégés' WFC was not supported by the current data (β = .02, t = .30, n.s.).

4. Discussion

Drawing on the job demands-resources model, the present study examined the dual

roles of formal mentoring functions in protégés' WFC. In particular, our findings showed that the extent of formal mentoring functions received predicted protégés' WFC through two distinct paths: On the one hand, the extent of formal mentoring functions received was positively associated with job resources, which in turn negatively impacted protégés' WFC. On the other hand, the extent of formal mentoring functions received positively related to job demand (i.e., workload), which subsequently had a positive influence on protégés' WFC. Moreover, the indirect effects between formal mentoring and protégés' WFC via job resources and workload were found to vary depending on protégés' work-family centrality. Both theoretical and managerial implications of our findings are discussed below.

4.1. Theoretical implications

First, our study highlights the crucial role of mentorship formality when examining the impact of mentoring functions on protégés' work-family interface. Although scholars have recognized the differences between formal mentoring and informal mentoring, the impacts of formal mentoring on protégés' outcomes (especially non-work domain outcomes) have been largely overlooked (Haggard et al., 2011; Hu, Wang, Wang, Chen, & Jiang, 2016; Liu et al., 2015). To our knowledge, the current study is the first empirical research that links formal mentoring functions and protégés' WFC. Although two previous studies (de Janasz et al., 2013; Nielson et al., 2001) have examined the effect of mentoring on protégés' WFC, both of them used mixed samples including formal mentoring and informal mentoring together. Our research has responded to the calls from the researchers of the above two studies to consider the impact of mentoring on protégés' WFC in different types of mentoring relationships (e.g., formal mentoring). By independently examining the effect of

formal mentoring on protégés' WFC, our findings provide a more accurate portrayal of the benefits and costs of formal mentoring functions for protégés' WFC.

Second, from the perspective of job demands and resources, this study extends mentoring literature by integrating the positive and negative effects of formal mentoring on protégés' WFC. These results show that on the one hand, formal mentor serves as a source of new skills, holistic perspectives, psychological resources and social capital, which in turn significantly reduce protégés' perceived WFC. On the other hand, formal mentoring raises protégés' visibility in their organizations and their perceptions of reciprocity with mentors (Allen et al., 2006). Formal mentoring is also likely to increase protégés' workloads, which ultimately results in WFC issues. Our findings have echoed calls from Greenhaus and Singh (2007) and Nielson et al. (2001) to examine the potential two-sided effect of mentoring on protégés' WFC. Overall, our research is the first empirical study to analyze two faces of formal mentoring and the dynamic mechanisms underlying the association between formal mentoring and protégés' WFC.

Finally, the current study adds to literature on mentoring and work-family interference by demonstrating the crucial contingent effects of protégés' work-family centrality. Given that previous research has shown that there are individual differences in the effectiveness of mentoring (Chen et al., 2014) and formation of WFC (Carr et al., 2008), protégés' personal characteristics should be considered into the influence of formal mentoring on WFC. Our results suggest that protégés' work-family centrality moderates the indirect effects of formal mentoring on WFC. Specifically, protégés who value work more than family may be better to able to utilize resources derived from mentors and thus reduce the possibility of WFC.

Inversely, protégés who consider family more important than work are more likely to regard formal mentoring as a source of increased workload and in turn are more likely to experience WFC problems. These findings align with previous studies that suggest that individuals pay more attention to the domain that they value more (Carr et al., 2008). By firstly examining the role of work-family centrality in contexts of formal mentoring, our work provides a more comprehensive understanding of the interplay between formal mentoring functions and protégés' individual values to protégés' outcomes.

4.2. Managerial implications

Our findings also provide some managerial implications for formal mentoring and work-family balance practices. Although mentoring has generally been regarded as an effective approach for advancing protégés' career-related outcomes (Allen, Eby, Poteet, Lentz, & Lima, 2004; Eby et al., 2013), organizations need to recognize the potential negative effect of formal mentoring on protégés' WFC. Therefore, the key issue is how to maximize the benefits and reduce the undesired outcomes of formal mentoring. First, from protégés' perspective, because formal mentoring relationships are established by managers without an initial basis of mutual attraction and trust between the mentor and the protégé, it is critical for protégés to communicate proactively with their assigned mentors about their needs in both their work and family domains. Mentors will then more prepared to arrange appropriate work tasks and will not let protégés feel stressed and overloaded, which in turn will reduce the risk of WFC.

Moreover, considering the "double-edged" role of formal mentoring functions on protégés' WFC, it is advisable that formal mentors should incorporate a work-family lens

when they help protégés. Supporting this idea, Nielson et al. (2001) indicated that the mentor's supportiveness of family responsibilities would reduce both protégés' WFC and family-work conflict. As Greenhaus and Singh (2007) proposed that protégés' WFC would be reduced if mentors adopt a work-family lens, mentors need to be sensitive and supportive of protégés' values and goals regarding the requirements of work-family balance. Thus, mentoring functions would become valuable resources rather than dreaded demands.

Finally, our findings regarding the moderating role of protégés' work-family centrality in the process of how formal mentoring exerts its influence on protégés' WFC suggest that formal mentors and managers should be aware of value differences among protégés and treat them individually. Protégés who value work more than family are more likely to deem formal mentoring as a source of job-related resources that help reduce WFC. In contrast, protégés who value family more than work are more sensitive to the impact of formal mentoring on workload. Therefore, formal mentors need to pay more attention to these protégés who consider family to be more important than work and reduce their feelings of having overwhelming job demands as well as WFC problems.

4.3. Limitations and future directions

Despite its numerous contributions, the present study still has several limitations. First, all measurements in our research were derived from self-reporting respondents, which might lead to a common method bias. Although participants often reported data by themselves in the literature about mentoring and work-family interference (Nielson et al., 2001), multi-resource data from both protégés' and mentors' perspectives should be collected in future research. Second, in spite of two-wave data collection, the nature of the

study's cross-sectional design limited us in testing the causal conclusions of our current results. For instance, we cannot rule out the possibility that protégés with a high level of WFC are more likely to feel as if they have fewer job resources and an increased workload. However, the logic of the above possibility is divorced from stress and work-family interference theory, which highlights that resources and stress are important antecedents of employees' WFC (Demerouti et al., 2001). Nevertheless, a longitudinal design is suggested for examining how formal mentoring functions influence protégés' WFC within different time phases. Third, the measure of work-family centrality only evaluates the relative importance of work and family in one's life but not the absolute magnitude of the individuals' work and family values. Given that we are interested in how the relative importance of work and family impact the indirect relationship between mentoring and WFC, the use of this concept is appropriate (Carr et al., 2008). However, if the purpose of the study concerns the roles of the importance of family and the importance of work in work-family interface concepts, then separate measures of the absolute values of how individuals value work and family should be used. Finally, although protégés' demographic characteristics were controlled in the present study, we did not control any organizational culture level variable. A recent research by de Janasz et al. (2013) has found that a supportive work-family culture was negatively associated with WFC. Future research should control the possible impact of the supportive work-family culture on protégés' WFC.

The present study also suggests several additional directions for future research. First, future research should examine the effects of mentoring functions on protégés' WFC in informal mentoring samples. Because informal mentoring is developed without

organizational efforts, the negative side of mentoring functions on protégés' workloads and WFC might be less salient. Therefore, it is informative to investigate the process of how mentoring functions impacted protégés' WFC in informal mentoring and determine whether there is also a double-edged sword effect in our results. Second, future research should consider the moderating role of gender in the relationship between formal mentoring and protégés' WFC. Compared to men, women usually experience higher levels of family demands in regards to childcare and parent care needs. Thus, the association between formal mentoring and protégés' WFC may vary across gender. It helps to understand the boundary conditions in the formal mentoring-WFC relationship when acknowledging the significance of gender as a moderating factor. Third, as this study was conducted in China within a highly collectivist culture (Bozionelos & Wang, 2006), future research could assess the generalizability of our results in other different contexts. Under the reciprocity rule within interpersonal relationships, Chinese protégés may feel more stress and as if they have increased workloads because they are more likely to perceive obligations to return favors from their mentors (Yang et al., 2011). Thus, future cross-culture research could enrich our understanding of the influences of mentoring in different situational factors. Fourth, given that mentors can provide three types of mentoring functions (i.e., vocational support, psychosocial support, role modeling), one potential future research direction may be the examination of the potentially different roles of mentoring functions in influencing protégés' WFC. Thus, we can obtain a more comprehensive understanding of the role of formal mentoring functions regarding protégés' WFC. Finally, future research could also focus on the effect of formal mentoring on protégés' family-to-work conflict (FWC) and

use a multidimensional measure of WFC and FWC, which can distinguish the influence of formal mentoring on different forms of work-family conflict (i.e., time-based, strain-based, and behavior-based) (Carlson, Kacmar, & Williams, 2000). By so doing, we will be able to further reveal the complexity nature of work-family conflict and the role that mentoring functions play in the domain of work-family conflict.

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Table 1. Measure model comparison

Models	χ^2	*df*	$\triangle\chi^2$	RMSEA	CFI	NFI	NNFI
Five-factor model (baseline model): mentoring; job resources; workload; work-to-family conflict; work-family centrality	1618.37	692		.08	.91	.85	.91
Four-factor model: mentoring and job resources were combined into one factor	2615.20	696	996.83***	.12	.86	.79	.84
Four-factor model: mentoring and workload were combined into one factor	2080.78	696	462.41***	.10	.87	.81	.87
Four-factor model: job resources and workload were combined into one factor	2084.71	696	466.34***	.10	.87	.81	.87
Four-factor model: work-to-family conflict and work-family centrality were combined into one factor	2103.11	696	484.74***	.10	.87	.81	.86
Two-factor model: mentoring, job resources and workload were combined into one factor; work-to-family conflict and work-family centrality were combined into one factor	3558.51	701	1940.14***	.15	.78	.72	.77
One factor model: five factors were combined into one factor	4386.54	702	2768.17***	.17	.73	.68	.71

Note: *** $p < 0.001$.

Table 2 Descriptive statistics, correlation, and reliabilities for all variables.

	M	SD	1	2	3	4	5	6	7	8	9
1. Gender	1.37	.48	NA								
2. Age	26.0	2.37	.07	NA							
3. Education	3.50	.86	-.03	.27*	NA						
4. Marital status	1.60	.49	.06	.46**	.10	NA					
5. Formal	3.74	.63	-.07	-.01	.02	-.05	(.93				
6. Job resources	3.64	.69	-.19**	-.13	-.17*	-.12	.37**	(.88			
7. Workload	3.47	.75	-.08	-.02	.05	.05	.25**	.20*	(.83		
8. Work-family	3.09	.73	-.10	-.04	-.04	-.12	.09	.21*	.11	(.84	
9. Work-to-family	2.70	.84	.25**	.21*	.09	.20*	-.04	-.22**	.23*	-.10	(.88

Note. Cronbach's α is in italics on the diagonal (N = 193). * $p < .05$, ** $p < .01$, *** $p < .001$.

Highlights

- Examining a dual-path effect of formal mentoring on protégés' WFC through the job demands-resources model.
- Job resources negatively mediated the relationship between formal mentoring and protégés' WFC.
- Workload positively mediated the relationship between formal mentoring and protégés' WFC.
- Work-family centrality moderated the above two mediation effects.