

RESEARCH ARTICLE

Hardworking coworkers: A multilevel cross-national look at group work hours and work–family conflict

Hoda Vaziri¹  | George S. Benson² | Maritza Salazar Campo³

¹Department of Psychological Sciences, Purdue University, West Lafayette, Indiana, U.S.A.

²College of Business Administration, University of Texas at Arlington, Arlington, Texas, U.S.A.

³The Paul Merage School of Business, University of California, Irvine, Irvine, California, U.S.A.

Correspondence

Hoda Vaziri, Department of Psychological Sciences, Purdue University, 703 Third Street, West Lafayette, Indiana 47907, U.S.A.
Email: hvaziri@purdue.edu

Summary

This study investigates the relationship between coworker work hours and perceived work-to-family conflict (WFC) in a multinational sample of professional service employees. Building on recent research on the ways in which workgroups influence individual WFC, we demonstrate that the average hours worked by coworkers has a significant relationship to reported WFC independent of an employee's own work hours. Although this finding is universal across the multinational sample, national cultural differences were found to moderate the relationship, such that employees in more collectivist countries are more strongly influenced by average coworker hours than their counterparts in less collectivist countries. The multilevel analysis was conducted using a sample of 7,600 professional service employees in 497 different workgroups across 20 countries. The results provide support for the effect of culture on the relationship between group average hours and perceptions of WFC. We conclude with a discussion of how national culture affects WFC.

KEYWORDS

culture, multilevel, work–family conflict, work hours

1 | INTRODUCTION

Work-to-family conflict (WFC) is a seemingly inherent part of modern society and an issue for organizations worldwide. Research shows that employees who work long hours experience greater conflict between their work and nonwork roles than other employees (Frone, Yardley, & Markel, 1997; Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011; Shockley, Shen, DeNunzio, Arvan, & Knudsen, 2017; Voydanoff, 2004). Although there are important international differences, the relationship between work hours and WFC appears to be universal across cultures (Spector et al., 2007; Yang et al., 2012). With a finite number of hours in a day, more time spent on the job means less time for family, friends, and personal development. An employee's experience of WFC, however, is far more

complicated than how time is allocated. Elements of the work and social context, such as workgroup norms and cultural values, can influence the hours employees choose to work and their perception of work–family conflict.

Research on WFC has historically focused on individual and organizational predictors of WFC. A 2011 meta-analysis on antecedents of WFC identified four primary categories of work-related factors that influence WFC: job stressors, role involvement, social support, and work characteristics (Michel et al., 2011). Of these, job stressors (i.e., work role conflict, work role overload, and work time demand) are most often studied and tend to be highly correlated with WFC. These relationships are commonly explained using resource demand or conservation of resources theory suggesting that individuals have limited time, energy, and cognitive resources (Edwards & Rothbard, 2000; Ganster, Rosen, & Fisher, 2018; Hobfoll, 1989, 2011). When employees expend more of these resources at work, they have fewer resources available to allocate for nonwork activities. These theories frame WFC as the interplay between the forces that deplete personal

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resources, such as workload and involvement, and those that buffer depletion or enhance personal resources such as family-oriented organizational practices (Lapierre et al., 2018; Wayne, Casper, Matthews, & Allen, 2013) and supervisor support (Bagger, & Li, a., 2011; French, Dumani, Allen, & Shockley, 2018).

The ways in which the broader work environment shapes perceptions of workload and WFC have received less attention from researchers. Some studies have examined the ways in which coworkers and supervisors affect WFC through direct interaction in the forms of instrumental aid or emotional support (Ferguson, Carlson, & Kacmar, 2015). These studies approach social support as a form of resource enhancement or a buffer that helps ease WFC (e.g., Hammer, Kossek, Anger, Bodner, & Zimmerman, 2011; Hammer, Kossek, Yragui, Bodner, & Hanson, 2009). However, another emerging line of research has shown the potential for coworkers to influence perceptions of WFC through means other than the provision of aid or resources (Bagger, & Li, a., 2011; Van Emmerik & Peeters, 2009). WFC experienced by coworkers also influences individuals indirectly through the work climate (Bhave, Kramer, & Glomb, 2010; Paustian-Underdahl & Halbesleben, 2014; Van Emmerik & Peeters, 2009). For example, Bhave et al. (2010) found that aggregate workgroup WFC among university employees was positively related to individual-level WFC even when controlling for work demands and other stressors. Accordingly, the first goal of this study is to extend these studies by examining how coworkers' work hours influence an individual's experience of WFC.

Although prior studies illustrate that feelings of conflict, stress, or strain associated with WFC can crossover from the group to the individual, open questions remain about the conditions under which these crossover effects occur (Bhave et al., 2010; Bolger, DeLongis, Kessler, & Wethington, 1989; Van Emmerik & Peeters, 2009; Westman, Brough, & Kalliath, 2009). For example, cultural differences in how employees identify with their workgroups have important implications for their attitudes and behaviors (Hofstede, Hofstede, & Minkov, 2010; Taras, Kirkman, & Steel, 2010). National differences in how employees perceive WFC have been examined in several large multicountry studies (Lu, Gilmour, Kao, & Huang, 2006; Lyness & Judiesch, 2014; Ollier-Malaterre & Foucreault, 2017; Spector et al., 2004, 2007; Yang et al., 2012). These studies demonstrate that employees experience workload and WFC differently across cultures in ways that cannot always be explained by differences in work hours, family situation, or the availability of domestic help (Lu, Siu, Spector, & Shi, 2009; Luk & Shaffer, 2005; Spector et al., 2007). We expect that the collectivist society in which employees are embedded has the potential to affect how they perceive and respond to the work hours of their coworkers. We focus on collectivism because this cultural dimension reflects the extent to which individuals define themselves by the groups to which they belong and the extent to which they are committed to group norms and goals (Hofstede, 2001; Triandis, 1995; Yang et al., 2012). Individuals are likely to have different reactions to environments where coworkers tend to work long hours depending on how they construct their sense of self relative to the workgroup. The second goal

of this study, therefore, is to investigate the degree to which cultural collectivism moderates the strength of the relationship between coworker work hours and individual WFC.

This research makes several contributions to the literature. First, we show that work environments with norms for long work hours contribute to perceived WFC in employees beyond the number of hours worked by an individual. Showing this relationship extends research on job-related stressors beyond individual working hours or work demand (Frone et al., 1997; Ganster et al., 2018; Hobfoll, 1989, 2011; Voydanoff, 2004). This study shows that the hours of those working around you also affect your felt WFC. Second, we extend the small number of WFC studies examining crossover effects at the workgroup level. These studies suggest that coworkers affect others' WFC through the social environment at work. Multilevel research has shown that a shared perception of WFC at the unit (Bhave et al., 2010) and team (Van Emmerik & Peeters, 2009) levels directly contributes to individual WFC. Our study uses a similar approach to examine actual work hours of coworkers and WFC. We demonstrate that environmental stressors, such as a work environment where people work long hours, affect employees in ways that have not been considered previously. Our research shows that WFC is higher in an office where long hours are the norm independent of an individual's own work hours. The heightened perception of WFC is not only due to a shared perception of WFC among coworkers but also due to the work hours that employees observe their coworkers working.

Third, as typical work hours vary widely around the world, we extend the cross-cultural understanding of WFC by examining how culture shapes the perception of norms and subsequent work attitudes for coworker hours across 20 countries (Lee, McCann, & Messinger, 2007; Ruppner & Maume, 2016). Several large sample studies have examined the effects of individual work-related stressors on WFC and shown that reactions to long work hours vary widely across cultures (Spector et al., 2007; Yang et al., 2012). We extend cross-cultural research about WFC by showing that coworkers' work hours directly contribute to WFC, independent of individual work hours, and that this relationship is the strongest in highly collectivist countries.

2 | HYPOTHESES

Greenhaus and Beutell (1985:77) defined work-family conflict as "a form of inter-role conflict in which the role pressures from work and family domains are mutually noncompatible in some respect." Researchers and practitioners are generally interested in the conflict between employees' two main roles (i.e., work and family) because such a conflict has an array of negative consequences, including lower job satisfaction, family satisfaction, career satisfaction, organizational commitment, job performance, and organizational citizenship behaviors (Amstad, Meier, Fasel, Elfering, & Semmer, 2011). It is also associated with higher turnover intentions, absenteeism, stress, burnout, and exhaustion (Nohe, Meier, Sonntag, & Michel, 2015).

The literature on work-family conflict treats the construct as bidirectional. That is, work can interfere with an individual's family (WFC), and family role and responsibilities can also interfere with an individual's work (family-to-work conflict or FWC; Casper, Bordeaux, Eby, Lockwood, & Lambert, 2007; Frone, Russel, & Cooper, 1992). The two constructs are related but distinct and have different antecedents and outcomes (Casper, Vaziri, Wayne, DeHauw, & Greenhaus, 2018). Meta-analytic findings on the antecedents of WFC and FWC suggest that work-related factors, such as work support and work hours, are more strongly related to WFC, whereas nonwork-related factors, such as spousal support and the number of children, are more strongly related to FWC (Michel et al., 2011; Shockley et al., 2017). In this study, we specifically focus on the work-to-family direction of the conflict given our primary interest is the work environment and the hours worked by colleagues. Furthermore, we have no reason to expect that the hours worked by coworkers would be related to the degree to which employees feel that their family roles and responsibilities conflict with their work.

Many empirical studies have investigated, or controlled for, the effect of working hours on WFC (e.g., Adkins & Premeaux, 2012; DiRenzo, Greenhaus, & Weer, 2011). In a meta-analysis on the consequences of long working hours, Ng and Feldman (2008) found that WFC was one of the most pronounced consequences of long working hours. The effects of job-related stressors on WFC are most often viewed from the perspective of conservation of resources theory (Hobfoll, 1989, 2011). According to the theory, individuals have a finite amount of time, attention, and energy, and therefore, higher time commitment or demand from one role puts pressure on other roles (Edwards & Rothbard, 2000; ten Brummelhuis & Bakker, 2012). Therefore, job-related stressors, such as time demand or being contacted outside working hours, result in higher WFC.

2.1 | Group average work hours and WFC

In many organizations, employees work in groups to accomplish tasks. We predict that these workgroups play a role in how individuals perceive their own WFC. Research shows that group-level variables often impact individual-level perceptions and behaviors (Bhave et al., 2010; Van Emmerik & Peeters, 2009). For example, observed conflict or unfairness among coworkers can influence individual performance within the group even if an individual is not directly involved (Colquitt, Noe, & Jackson, 2002; Jehn, 1995; Roberson & Colquitt, 2005).

Research has demonstrated that the perception of individual workload explains differences in reactions to work hours across cultures (Yang et al., 2012). We argue group norms for work hours also shape perceptions of WFC. A "group norm" is defined as a standard or rule that is accepted by members of the workgroup and prescribes appropriate behavior for group members (Levine & Moreland, 1991). Norms can be situationally defined and can vary from one work unit to another (Postmes & Spears, 1998; Thibaut, 2017).

The work hour norms of a unit, therefore, help guide whether employees conform or deviate from the hours that they see their coworkers contributing. Accordingly, we predict that a shared norm of long working hours can influence an individual's perception of WFC.

Group norms develop as individual members observe and pay attention to the behaviors of others in their environment (Postmes, Spears, Sakhel, & Groot, 2001). Norms promote adaptive and effective behaviors by providing guidelines about the types of behavior that are acceptable and unacceptable (Chiu, Gelfand, Yamagishi, Shteynberg, & Wan, 2010; Cialdini & Trost, 1998). According to the shared attention hypothesis, individuals experience the world from a shared attentional perspective, which is "a mode of attention that one takes on the world from the first person plural perspective—the 'we-mode'" (Shteynberg, 2015b, p. 1246). The shared attention hypothesis suggests that individuals allocate more cognitive resources to information that is perceived as shared with their group (Shteynberg, 2015b, 2015a). As a result, agreement develops within the group for appropriate standards of behavior and shapes individual attitudes and behaviors (Shteynberg, 2015b, 2015a). In the office, shared norms form when workers observe the work hours of their coworkers by comings and goings in the office or on email.

Social information processing theory also suggests that social context leads to shared perceptions as individuals interpret direct communication from their coworkers and indirect informational cues from their work environment (Chen, Takeuchi, & Shum, 2013; Salancik & Pfeffer, 1978; Zalesny & Ford, 1990). For example, Bhave et al. (2010) argued that in cases where an employee was prohibited from leaving work early to attend to a family emergency, their coworkers would experience WFC. This experience occurred even when the coworkers were not directly affected by the family emergency nor directly interacted with that employee. They found that WFC at the group level influences WFC at the individual level. They argued that long-term close interactions within workgroups allow individual-felt WFC to influence coworkers, leading to a shared WFC perception (Bhave et al., 2010). Moen et al. (2015) also found that team-level perception of WFC predicted individual-level perception of WFC after controlling for the individual-level perception of job characteristics.

Therefore, we argue that the norms and expectations for long work hours among coworkers are likely to influence group members' WFC. If the office norm is to work long hours, the employees might still feel high levels of WFC even if they do not work long hours themselves. The felt obligation to comply with group norms and expectations for long working hours, coupled with associated feelings of guilt or stress, will heighten the experience of WFC. Thus, we predict that normative group work hours (i.e., group average work hours) are positively related to WFC over and above the effect of the hours that an individual actually works.

Hypothesis 1. *Group average work hours are positively related to individual-level WFC after controlling for individual work hours.*

2.2 | Collectivism and group average work hours

Although the experience of WFC resulting from long work hours kept by coworkers is universal, we predict that this relationship is moderated by national culture and collectivism in particular. Societal values, beliefs, and expectations are known to influence the priority and pressure associated with work and family roles. This influence suggests that differences in cultural values might result in different perceptions of role stressors and WFC (Ollier-Malaterre & Foucreault, 2017; Powell, Francesco, & Ling, 2009). Culture influences how individuals interpret situational and environmental cues and subsequently forms attitudes and behaviors (Smith, 2004). According to the Cultural Expertise and Personal Values Proposition (Peterson & Barreto, 2014), individuals within a society develop cultural expertise (i.e., cognitive structure) through social learning and repeated contact with situations that prime similar ways of thinking and behaving (Peterson & Wood, 2008). Therefore, culture provides a template for cognitive processing and affects the interpretation of and reactions to information and situational cues (Gibson, Maznevski, & Kirkman, 2009; Peterson & Barreto, 2014). Accordingly, we believe societal culture has important implications for how situational cues (i.e., group average work hours) are interpreted.

Collectivism is a cultural value that has important consequences for the attitudes and behaviors of individuals at work (Kirkman, Lowe, & Gibson, 2006). At the core of the concept is the emphasis on social groups that bind individuals and shape their cognitive structure and self-concept (Oyserman, Coon, & Kimmelmeier, 2002). Group membership is an important source of identity for individuals socialized in highly collectivist societies (Hofstede et al., 2010; Oyserman et al., 2002; Triandis, 2001). Accordingly, these individuals tend to be motivated to maintain harmonious relationships with in-groups and are more likely to be guided by group norms, goals, duties, and obligations relative to individual goals and self-interest (Fischer et al., 2009; Markus & Kitayama, 1991; Triandis, 2001). Behaviors and attitudes of individuals embedded in highly collectivist cultures are often driven by social norms and obligations to in-groups (Gelfand & Harrington, 2015; Oyserman et al., 2002; Triandis, 1995, 2001). Adherence to behavioral norms varies depending on the extent to which there are strong social norms and the degree of sanctioning for deviating from these norms (Gelfand, Harrington, & Jackson, 2017). Tight societies, where individuals tend to conform more to social norms and expectations, also tend to be nations where individuals are generally influenced by collectivist values (Gelfand et al., 2011). Therefore, group norms, such as group work hours, more strongly shape the attitudes and behaviors of individuals in more collectivist societies than less collectivist ones.

Although individuals' acceptance of cultural values varies within a society (Chatman & Barsade, 1995; Moorman & Blakely, 1995; van Dyne, Vandewalle, Kostova, Latham, & Cummings, 2000), collectivism is also a characteristic that differentiates one national culture from another (e.g., Fisher, 2014; Jang, Shen, Allen, & Zhang, 2018). The cultural values that the members of a society ascribe to on average influence the cognitive structures and schemas of those socialized within

the society (Peterson & Barreto, 2014). This socialization further perpetuates shared values at the societal level (Peterson & Barreto, 2014).

Individualism–collectivism can be considered separate dimensions at the individual level. Specifically, individuals can simultaneously possess both individualistic and collectivistic values (Triandis & Gelfand, 1998). At the same time, the two dimensions form a single construct when used as a societal measure (Kirkman et al., 2006). That is, cultures in aggregate tend to value either individualism or collectivism (Hofstede et al., 2010; Triandis, 1994). In this paper, we focus on individualism–collectivism as a country-level construct, with individualism and collectivism existing on opposite sides of the same continuum. This focus is aligned with the work of other scholars who have demonstrated that a country's level of individualism–collectivism is related to differences in economic development, leadership, group performance, communication, conformity, and values (Smith, Dugan, Peterson, & Leung, 1998; Taras et al., 2010; Triandis, 1995; Wendt, Euwema, & Van Emmerik, 2009). For the remainder of our paper, we refer to countries as being low or high in “collectivism” as determined by their position on the individualism–collectivism continuum.

Collectivism has direct implications for perception of WFC (Billing, Bhagat, Babakus, Srivastava, & Brew, 2014; Ollier-Malaterre & Foucreault, 2017; Ollo-López & Goñi-Legaz, 2017; Yang, Chen, Choi, & Zou, 2000). Employees across different cultures are likely to react differently to the same number of work hours and workload (Hill, Yang, Hawkins, & Ferris, 2004; Lu et al., 2006; Spector et al., 2004, 2007; Yang et al., 2000; Yang et al., 2012). In a sample of employees from 15 countries, for instance, Spector et al. (2004) found that the positive effect of working hours on work–family pressure was the strongest among the employees from the Anglo cluster (low in collectivism) compared with those from Chinese and Latin American clusters (high in collectivism). Similarly, Lu et al. (2006) found that the positive relationship between workload and WFC was stronger among British employees (low in collectivism) than Taiwanese employees (high in collectivism). Spector et al. (2007) found that work hours and perception of workload were stronger predictors of WFC in the Anglo cluster than in Asian, East European, and Latin American clusters. Finally, Yang et al. (2012) found that the relationships between work hours and perceptions of workload, job dissatisfaction, and turnover intentions were stronger for employees in low collectivist cultures compared with those in high collectivist cultures. On the other hand, some studies suggest that the positive relationship between work demands and WFC may be stronger in more collectivist cultures (e.g., China) than in less collectivistic cultures (e.g., the United States) or similar across countries when job expectations are well defined (Hill et al., 2004; Yang et al., 2000). Taken together, these mixed findings motivate further probing into the relationship between collectivism and WFC.

Scholars have demonstrated that the perception of individual-level workload explains differences in reactions to work hours across cultures (Yang et al., 2012). We suggest that the normative amount of time that fellow workers commit to the organization (i.e., group average work hours) differently influences WFC across cultures as

well. Because employees socialized in cultures high in collectivism often define themselves in terms of interdependence and group membership, their perceptions and attitudes are more strongly shaped by group norms and expectations (Chen, Chen, & Meindl, 1998; Davidson, Jaccard, Triandis, Morales, & Diaz-Guerrero, 1976; Yang et al., 2012). Thus, we predict that when the group-level work hours are high, working more hours is viewed favorably in more collectivist cultures. This favorable view results from the individual's motivation to contribute to the workgroup and to conform to what is viewed as desirable behavior for group members. Yet working more hours may simultaneously cause greater WFC, as obligations to family and other important social groups become increasingly difficult to meet. In less collectivist societies, where individual independence is seen as valuable, group work hour norms will have less of an influence on an individual. Consequently, workers in less collectivistic cultures may feel less constrained when allocating their time across work and family domains and experience lower levels of WFC. Accordingly, we hypothesize that the effect of group average work hours in increasing the perception of WFC is likely to be moderated by collectivism such that individuals working in more collectivist countries would be more strongly influenced by their coworkers' long hours than workers embedded in less collectivist cultures.

Hypothesis 2. *Collectivism moderates the relationship between the group average work hours on employee perception of work-to-family conflict, such that the relationship is stronger in more highly collectivistic cultures.*

3 | METHODS

3.1 | Sample and procedure

Data for this study were collected through employee surveys in a large multinational network of professional services firms. The employees in all countries perform similar work in client service roles in the fields of accounting, tax, finance, and consulting. Employees are professional, well educated, and licensed to do highly technical work. Employees are recruited out of university and progress through a series of promotions from associate, senior associate, manager, senior manager, and then partner. Employees serve local and international clients doing audit, tax, and consulting work in highly organized engagements. The work is demanding and requires long hours and working at client locations and often out of town.

WFC is a consistent issue in this industry, and this sample is particularly appropriate for testing the relationship between coworker hours and WFC across cultures for several reasons. First, employees are likely to know and be influenced by the work hours of coworkers in their same workgroups. Coworkers in an office and line of service work together to serve a group of clients to complete audit, tax, and consulting projects. The work requires

close coordination within and across client engagements. This involves regular face-to-face and electronic communication as well as often working and traveling together with coworkers. Second, employees typically do not work on a single engagement team but rather multiple engagements at the same time and multiple engagements throughout the year with coworkers drawn from the larger line of service and location workgroup. Third, all employees are expected to contribute to the firm beyond their specific engagements and billable hours. This work includes, for example, practice development and proposal writing, mentoring and training junior employees, administrative tasks including billing, and social events. Finally, the nature of the work and management practices across offices and around the world is consistent, which allows for direct comparisons of employees in different locations and different countries.

Employees were randomly selected to participate in one of two surveys that were administered at the same time. The responses from employees who responded to Survey 1 were used to calculate the group-level variable (i.e., group work hours), and responses from employees who responded to Survey 2 were used for the individual-level analysis (e.g., demographics and individual work hours). We used the data from Survey 1 for calculating group average hours to make the group data independent of individuals included in the analysis and guard against any potential for confounding the effects of work hours at the individual level and work hours at the group level on the perception of WFC. We were not able to combine Survey 1 and Survey 2 data to conduct the analysis because some of the constructs were not measured in both surveys (e.g., supervisor support). Surveys were managed and distributed by a university research center in the United States and fielded across the countries using an identical process. Emails were sent from the senior leadership of each country to employees introducing the survey followed by an email from the research center with links to the web-based survey. The questionnaire was translated from English into each target language by professional translators and back-translated by collaborators at each regional office or by competent bilinguals under their oversight (Brislin, 1970). In cases where the translator and the competent bilingual disagreed on how to express certain terms or phrases, the discrepancies were discussed and resolved by selecting the most appropriate and understandable translation. Employees around the world were given the option to take the survey in English (the language of business across the firms) or the local language of the country where they resided. Percentages of responses in each language by country are reported in Table 1. No significant differences in demographic information and responses were found among those who responded to the survey using different languages.

Overall, 16,922 total employees responded to Survey 2 with an overall response rate of 34.1%. Response rates across countries ranged from 20% in the Netherlands to 47% in Korea. Employees who worked full time, were not an expatriate, and reported their location and line of service in the survey were included in the analysis. We removed expatriates from the analysis ($N = 448$) because

TABLE 1 Sample descriptive information

Country	Collectivism score	% Female	Individual N	City N	Group N	Average group size	Response rate	Survey languages used
Brazil	0.62	38%	209	12	26	8.04	39%	Portuguese (76%), English (24%)
Canada	0.20	48%	271	16	34	7.97	30%	English (92%), French (8%)
China ^a	0.80	59%	735	15	28	26.25	36%	Chinese (64%), English (36%)
Czech Republic	0.42	29%	17	2	4	4.25	33%	English (100%)
Egypt	0.75	27%	11	1	2	6.00	41%	English (100%)
France	0.29	38%	175	9	12	14.58	25%	French (83%), English (16%), Spanish (1%)
Germany	0.33	34%	535	20	41	13.05	37%	German (77%), English (22%), French (1%)
India	0.52	20%	280	7	20	14.00	34%	English (100%)
Italy	0.24	38%	214	14	20	10.70	41%	Italian (75%) English (25%)
Japan	0.54	16%	322	3	7	46.00	41%	Japanese (94%) English (6%)
Korea	0.82	17%	335	4	7	47.86	47%	Korean (93%) English (7%)
Mexico	0.70	38%	212	13	21	10.10	46%	Spanish (80%) English (20%)
Netherlands	0.20	29%	206	10	18	11.44	20%	English (99%) Russian (1%)
Poland	0.40	42%	60	2	4	15.00	21%	Polish (58%) English (42%)
Russia	0.61	68%	90	4	6	15.00	21%	English (51%) Russian (49%)
South Africa	0.35	51%	306	18	29	10.55	36%	English (100%)
Spain	0.49	34%	333	11	19	17.53	42%	Spanish (85%) English (15%)
Switzerland ^b	0.32	31%	143	10	18	7.94	42%	German (43%) English (37%), French (16%), Italian (2%), Spanish (1%)
United Kingdom	0.11	40%	641	23	46	13.93	22%	English (100%)
United States	0.09	45%	2,505	63	135	18.56	37%	English (100%)
Overall		40%	7,600	257	497	15.29	34%	

^aData include HK/Macau. ^bData include Liechtenstein.

their cultural intuition may be different from that of their coworkers, and they may be influenced by the group average hours differently. The percentage of expatriates within each country ranged between 0% in the Czech Republic and 23% in Switzerland. We included only client service employees, as the work hours are longer and the norms are stronger for these employees than for internal firm services jobs. Nonclient service staffs are involved in the firm's administrative tasks (e.g., HR) and typically have a regular set work schedule and do not interact directly with clients. On the other hand, client service employees usually work in engagement teams to provide audit, tax, and consulting services for clients. Partners were also excluded from the analysis because the nature of their work is different from associates and managers.

Workgroup average hours were calculated using employee responses from Survey 1 and were based on the average of work hours of employees in the same office location and line of service. Employees who are in the same line of service and are located in the same office regularly work together on various engagement teams to serve clients. Employees tend to work on multiple engagements at the same time throughout the year, and the firm is organized to staff engagements from markets by location and line of service. These coworkers have regular face-to-face interactions and

comprise the relevant social environment experienced by our survey respondents. If the number of respondents within each workgroup in Survey 1 were less than three employees, the respondents were removed from the analysis (see Bhawe et al., 2010; Glomb & Liao, 2003, for a similar approach). The final sample, after listwise deletion of missing values, included 7,600 employees in 497 workgroups across 20 countries. The average size of the workgroups examined was 15.29 responses. Forty percent of respondents were female with an average age of 30.46 ($SD = 6.92$). In terms of family, 46% were married or cohabiting with a partner, and 77% responded they did not have any children under the age of 18. Those who had at least one child reported having less than two children under the age of 18 on average ($M = 1.66$, $SD = 0.96$). The final sample included 32% associates, 31% senior associates, 20% managers, and 17% senior managers. Descriptive information on the number of employees, the number of workgroups, and the average size of the workgroup for each country is presented in Table 1. Although the size of the workgroup varies substantially across countries, the ML estimator in multilevel models does not assume balanced cluster size, and Monte Carlo simulations suggest that even extreme unbalance does not result in biased estimates of standard errors (Maas & Hox, 2005).

3.2 | Measures

3.2.1 | Work-to-family conflict (dependent variable; Survey 2)

WFC was measured using four of the items in the five-item scale developed by Netemeyer, Boles, and McMurrian (1996). Sample items include the following: "The demands of my work interfere with my home and personal/family life" and "My job produces strain that makes it difficult to fulfill personal/family duties." Due to concerns about survey length and consistent with previous research (e.g., Cheng & McCarthy, 2013), we removed one item from the survey: "Things I want to do at home do not get done because of the demands my job puts on me." The scale was administered on a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*). The average reliability of the scale across countries was calculated as 0.88, which ranged between 0.73 (Korea) and 0.93 (Russia).

3.2.2 | Average work hours per week (Level 1 predictor; Survey 2)

Work hours in professional service firms typically vary throughout the year. These variances typically result from a firm's "busy season," which corresponds to audit and tax filing deadlines. We asked the respondents about the average hours they work during different times of the year. We asked, "How many hours per week did you work on average during the busiest time in the last 12 months?" (q1), "For how many weeks did you work that long?" (q2), and "How many hours per week did you typically work on average outside of the busiest time in the last 12 months?" (q3). Average hours per week were calculated using a formula of $(q1 * q2 + q3 * (52 - q2))/52$. Employees in this firm are required to give detailed reports for their billable and administrative (non-billable) time. Therefore, we believe that they have a very good idea about the hours that they work. The firm also uses an electronic system that reports employee engagement staffing, which can be accessed by all employees.

A total of 96 respondents with average hours per week of greater than 75 were considered outliers (i.e., three SDs above the mean) and were removed from the analysis. We rounded to 75 hr to normalize the distribution and excluded cases beyond three standard deviations. Conversations with firm HR directors indicated that an average of 75 hr or more year-round would be extremely atypical if not physically impossible. These responses were more likely due to errors in responding. We conducted additional analyses using Ronen and Shenkar's (2013) country clusters to investigate whether a disproportionate number of cases across cultures were removed from the analysis due to the cutoff value. The results indicated that countries in Anglo (0.2%), Nordic (0%), Germanic (0.04%), Latin European (0.07%), and African (0.07%) clusters had fewer employees reporting average work hours of more than 75, compared with countries in Far East (3%), Confucian (3%), and Latin America (5%), $F(8, 7675) = 18.41$, $p < 0.001$. To investigate the influence of such disproportionate removal of cases on the robustness of our results, we ran a series of

alternative models with different cutoff values (i.e., 85, 100, and no cutoff), which indicated that the results were robust, regardless of the cutoff value.

3.2.3 | Group average work hours (Level 2 predictor; Survey 1)

The average work hours per week of respondents (Survey 1) in each workgroup was calculated to constitute the group average work hours. Average work hours, when aggregated to the group level of analysis, is considered an additive composition model (Chan, 1998). The individual-level agreement on the average work hours is not central to the meaning of group average hours. Therefore, the within-group variance among individuals is not relevant in the composition of higher-level constructs. No group level aggregation statistics (e.g., r_{wg} , ICC), therefore, were necessary for the analysis.

We conducted additional analyses to examine whether the dispersion of work hours within groups influences the effect of group average hours on the experience of WFC at the individual level. The results, however, suggested that dispersion of group work hours (operationalized as the standard deviation of group work hours) did not influence WFC directly ($\beta = 0.00$, $p > 0.05$), or indirectly by interacting with group average hours ($\beta = -0.01$, $p > 0.05$). Detailed results of this analysis are provided in Supporting Information.

3.2.4 | National culture (Level 3 predictors; archival data)

Hofstede's (1980) cultural values were used as the measure of collectivism. Hofstede's cultural dimension of collectivism is one of the most widely studied measures of national culture and has been used to predict a variety of employee outcomes (Kirkman et al., 2006; Taras et al., 2010). However, it has been criticized for a number of reasons (Brewer & Venaik, 2011; McSweeney, 2002). Accordingly, we conducted additional analyses using Global Leadership and Organizational Behavior Effectiveness (GLOBE)'s measure of in-group collectivism as practiced in society for comparison. The GLOBE project sought to refine Hofstede's dimensions; however, it has been criticized as well. For example, it has been argued that the middle managers surveyed in the project may not have been able to accurately describe cultural values of the larger society (Peterson, 2004). The results were slightly different from the model using Hofstede's measure. Specifically, GLOBE's measure of collectivism was a weaker moderator of the relationship between group average work hours and WFC compared with Hofstede's measure. In addition, it was not a significant moderator of the relationship between individual work hours and WFC. The results of this analysis are presented in Supporting Information. The observed differences between the two measures are not uncommon, given the conceptual differences between them (Brewer & Venaik, 2011; Smith, 2006). Specifically, although Hofstede's conceptualization of culture is based on the average of self-report of values, GLOBE conceptualization stems from individuals' report of what is widespread within their organization or society (Smith, 2006). Further, items used to measure

Hofstede's collectivism are mainly work-focused, whereas the items in GLOBE's in-group collectivism are mainly family-focused (Brewer & Venaik, 2011). These differences might explain the weaker moderating effect of the GLOBE measure, and we believe that Hofstede's measure is more appropriate to be used in this study.

The cultural value for each country was obtained from Hofstede's website (www.geert-hofstede.com; see also Hofstede et al., 2010). It should be noted that although most country scores come from the original IBM study, the scores for Eastern Europe, Russia, China, Korea, and Egypt are approximations developed after the original IBM study. These scores represent relative positions of countries on collectivism, and research mimicking Hofstede's measure using World Value Survey suggest that although contemporary societies have lower scores on collectivism, these scores have not changed relative to other countries (Beugelsdijk, Maseland, & van Hoorn, 2015). We reverse-coded the scores to represent collectivism and rescaled them (0 to 1) for ease of interpretation. These scores are listed in Table 1.

3.2.5 | Control variables (Survey 2)

We controlled for individual-level variables that might influence WFC, including demographics, perception of supervisor support, and frequency of contact at home. Age was included because prior studies have suggested that younger individuals experience higher WFC (Grandey & Cropanzano, 1999). Prior studies have found contradictory results regarding the effect of gender on WFC (Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005; Shockley et al., 2017). Therefore, we controlled for its effect. Prior research has also indicated that the number of children would influence the perception of WFC (Byron, 2005; Michel et al., 2011).

We included two additional control variables that represent work-related social support and stressors. Perception of supervisor support represents a type of work-related social support that reduces the experience of WFC (Byron, 2005; Michel et al., 2011). The variable was measured with four items adapted from the perceived organizational support scale (Eisenberger, Huntington, Hutchison, & Sowa, 1986). A sample item includes the following: "My immediate supervisors would forgive an honest mistake on my part." The average reliability of the scale across countries was calculated as 0.74, with Egypt (0.42) and Poland (0.65) having the lowest reliabilities. Although the reliability of the scale in Egypt is not optimal, we believe that this is due to small sample size ($N = 11$). Supplemental analysis excluding Egypt resulted in the same pattern of findings. Finally, the frequency of contact at home represents a type of work-related demands that increases perception of WFC (Voydanoff, 2004, 2005). This variable was measured with a single item, "How often do coworkers, supervisors, managers, customers, or clients contact you about work-related matters outside normal work hours?" (Voydanoff, 2005).

3.3 | Analytic strategy

Multilevel analysis was used to examine all the hypotheses due to the nested nature of the data. Multilevel analysis takes into account the

nonindependence of the data and ensures that each case in the higher level is not used more than once. The results reported here are the results of a three-level regression conducted in Mplus 7.4. Individual-level variables of average hours, gender, age, number of children under 18, supervisor support, and frequency of contact at home were included as Level 1 variables. Workgroup predictors of group average hours and line of service were included as Level 2 variables. Culture (i.e., collectivism) was included as Level 3 predictors. All Level 1 and Level 2 predictors were group-mean-centered based on workgroups and country, respectively, for unbiased estimation of slopes. Following the recommended approach for multilevel analysis, the Level 3 variable (i.e., collectivism) was grand-mean-centered (Hofmann & Gavin, 1998).

Four models were estimated to examine the hypotheses using an incremental improvement procedure (Hox, 2010). The first model included all the control variables. Average hours and group average hours were added to the second and third models, respectively, to test the incremental effect of group hours on WFC over and above the effect of individual work hours (Hypothesis 1). Finally, the interactions with collectivism were added to Model 4 to test Hypothesis 2. Although estimation of effect sizes is more difficult in multilevel models with cross-level interactions, we report pseudo R^2 (Snijders & Bosker, 2012) measuring the proportional reduction of Level 1, Level 2, and Level 3 errors to examine the comparative fit of the models.

3.4 | Preliminary analysis

Confirmatory factor analysis indicated that the expected two-factor model of WFC and supervisor support adequately fit the data as indicated in Table 2. The results suggested that the two-factor model was significantly better than the alternative one-factor model, $\Delta\chi^2(1) = 7157.69$, $p < 0.001$, $\Delta CFI = -0.248$. We also tested for scale equivalence across the countries using a process detailed by Vandenberg and Lance (2000) and Muthén and Asparouhov (2013). Measurement invariance analysis in cross-cultural research ensures that respondents have similar conceptual frames of reference and perceive rating intervals similarly (Schaffer & Riordan, 2003). We conducted a measurement invariance analysis for the WFC and supervisor support scales for the countries with 100 or more respondents (see Fisher, 2014, for a similar approach) with the results presented in Table 2. The measurement invariance analysis was also conducted including countries with a sample size of less than 100 (i.e., Czech Republic, Egypt, Poland, and Russia). The results were consistent with those reported here.

As indicated in Table 2, the χ^2 statistics are significant, which might signal the scales do not have adequate measurement invariance. However, it has been argued that the χ^2 test of model fit is not a good indicator of goodness-of-fit for large sample sizes and other fit indices, such as CFI and TLI, are recommended (Van De Schoot, Lugtig, & Hox, 2012). Therefore, configural invariance, which examines whether there is a similar factor structure across countries, was established based on these indices which suggest excellent model fit to the data,

TABLE 2 Summary of fit statistics for confirmatory factor analysis and measurement invariance tests

Variables	χ^2	RMSEA	CFI	TLI	SRMR	$\Delta\chi^2(df)$	ΔCFI
Confirmatory factor analysis							
Expected two-factor model	670.93 (27)***	0.056	0.978	0.970	0.048		
Alternative one-factor model	7828.62 (28)***	0.191	0.730	0.653	0.144	7157.69 (1)***	-0.25
Measurement invariance							
Configural invariance	618.82 (304)***	0.047	0.989	0.984	0.037		
Metric invariance	1005.33 (394)***	0.058	0.978	0.975	0.086	386.51 (90)***	-0.01
Scalar invariance	2034.00 (484)***	0.083	0.945	0.949	0.105	1028.67 (90)***	-0.03

$N = 7,422$ as the data for countries with less than 100 responses (Czech Republic, Egypt, Poland, and Russia) were removed from the analysis.

*** $p < 0.001$.

$\chi^2(304) = 618.82$, $p < 0.001$, CFI = 0.989, TLI = 0.984, RMSEA = 0.047. To establish metric invariance, which examines whether the factor loadings are equivalent across countries, the metric model should be compared with the configural model. The use of ΔCFI instead of χ^2 difference test is recommended because the χ^2 difference test is very sensitive to sample size and indicates poor goodness-of-fit if the sample size is large (Cheung & Rensvold, 2002). Cheung and Rensvold (2002) argued that ΔCFI , with the cutoff score of less than -0.01, is better to compare goodness-of-fit for different measurement invariance models. As presented in Table 2, the metric model had acceptable level of fit to the data, $\chi^2(394) = 1005.33$, $p < 0.001$, CFI = 0.978, TLI = 0.975, RMSEA = 0.058, and the ΔCFI between the configural

and metric model was -0.01, indicating that both scales have metric invariance. However, scalar invariance, which examines the equivalence of item intercept across countries, could not be established because the ΔCFI is greater than 0.01 between the scalar and metric invariance models. Although scalar invariance could not be established, we proceeded with the analysis for two reasons. First, mean differences of these constructs across countries are not central to our hypotheses. Second, scalar invariance may not be established when there are expected mean differences among comparison groups (Vandenberg & Lance, 2000). Various studies have found that differences in cultural values might influence individuals' perception of WFC (e.g., Spector et al., 2004, 2007; Yang et al., 2000). Therefore,

TABLE 3 Mean, standard deviation, and correlations among variables in the study

Variables	M	SD	1	2	3	4	5	6	7
Individual-level variables									
1 Gender ^a	0.40	0.49							
2 Age	30.46	6.92	-0.12***						
3 # of Children under 18	0.38	0.83	-0.12***						
4 Career stage ^b	1.37	0.48	-0.10***	0.59***	0.37***				
5 Frequency of contact	3.42	1.10	-0.09***	0.09***	0.07***	0.23***			
6 Supervisor support	3.61	0.72	0.02	-0.03*	0.00	0.01	-0.10***		
7 WFC	3.65	0.91	0.03*	-0.05***	-0.02	0.03*	0.29***	-0.28***	
8 Average work hours	48.68	7.24	-0.08***	0.00	-0.01	0.13***	0.34***	-0.12***	0.32***
Group-level variables									
1 Line of service—Assurance ^c	0.49	0.50							
2 Line of service—Tax ^c	0.29	0.45	-0.62***						
3 Mean WFC	3.63	0.50	0.20***	-0.07					
4 Group average work hours	48.59	3.78	0.05	-0.19***	0.28***				
Country-level variables									
1 Mean WFC	3.62	0.27							
2 Collectivism	0.56	0.23	0.12						

Note. Sample size depends on the level of analysis: $N = 7,600$ for individual-level variables; $N = 497$ for group-level variables; $N = 20$ for country-level variables.

^aMale = 0; Female = 1. ^bAssociate/Sr. Associate = 1; Manager/Sr. Manager = 2. ^cLine of service - Advisory as the reference group.

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

we expect our international sample to have countries with different means of WFC and supervisor support.

4 | RESULTS

Correlations and descriptive statistics of individual-, group-, and country-level data are presented in Table 3. The four models used to examine the hypotheses are presented in Table 4. Because the power to detect cross-level interactions and accuracy of estimation in multi-level analyses is a function of sample size at all levels of analysis (Maas & Hox, 2005; Mathieu, Aguinis, Culpepper, & Chen, 2012) and Egypt and the Czech Republic had a relatively small sample size at Levels 1 and 2, we also conducted supplemental analysis excluding these two countries. The results were consistent and similar to the ones reported here. Further, supplemental analyses were conducted controlling for

the size of the workgroups at Level 2 and GDP per capita at Level 3. The supplemental results indicated that these variables were not significant predictors of WFC and did not change the effects of other variables. The results reported here are based on the analysis without controlling for workgroup size and GDP per capita.

The results indicated that the model fit improved when individual-level average hours per week were added to the model (Δ pseudo $R^2 = 0.04$). Although pseudo R^2 increased only 1% after the addition of group average hours, small changes in overall pseudo R^2 is very typical of multilevel models, especially when a random effect predictor is added to the model (Aguinis, Gottfredson, & Culpepper, 2013; Snijders & Bosker, 2012). The pseudo R^2 change in Level 2 residuals indicates that pseudo R^2 increased from 9% to 17%, suggesting the strong predictive power of group work hours. Similarly, the addition of interaction terms increased the pseudo R^2 at Level 2 by 3%, suggesting that interaction variables are moderate predictors of WFC.

TABLE 4 Multilevel model results, predicting WFC

	Model 1 Control	Model 2 Individual hours	Model 3 Group hours	Model 4 Interactions
	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)
Intercepts	3.36 (0.09)***	3.43 (0.09)***	3.39 (0.09)***	3.40 (0.09)***
Individual-level				
Gender ^a	0.06 (0.02)**	0.09 (0.02)***	0.09 (0.02)***	0.09 (0.02)***
Age	-0.01 (0.00)***	-0.01 (0.00)***	-0.01 (0.00)***	-0.01 (0.00)***
# of Children under 18	0.00 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)
Frequency of contact	0.22 (0.03)***	0.17 (0.02)***	0.17 (0.02)***	0.17 (0.02)***
Supervisor support	-0.35 (0.02)***	-0.32 (0.02)***	-0.32 (0.02)***	-0.32 (0.02)***
Career stage ^b	0.06 (0.02)**	0.01 (0.02)	0.00 (0.02)	0.00 (0.02)
Average work hours		0.03 (0.00)***	0.03 (0.00)***	0.03 (0.00)***
Workgroup-level				
Line of service—Assurance ^c	0.24 (0.08)**	0.24 (0.08)**	0.27 (0.08)**	0.26 (0.09)**
Line of service—Tax ^c	0.07 (0.07)	0.07 (0.07)	0.14 (0.07)	0.12 (0.08)
Group average work hours			0.04 (0.00)***	0.04 (0.00)***
Country-level				
Collectivism	0.07 (0.25)	0.06 (0.25)	0.07 (0.25)	0.06 (0.25)
Interactions				
Average hours × Collectivism				-0.02 (0.01)*
Group hours × Collectivism				0.04 (0.01)*
Pseudo R^2 —Level 1 ^d	0.17	0.22	0.22	0.22
Pseudo R^2 —Level 2 ^d	0.09	-0.03 ^f	0.17	0.20
Pseudo R^2 —Total ^e	0.15	0.19	0.20	0.20
Model loglikelihood	-9098	-8892	-8874	-8872
Number of free parameters	13	16	18	20

Note. Unstandardized coefficients are reported; $N = 7,600$ for Level 1; $N = 497$ for Level 2; $N = 20$ for Level 3.

^aMale = 0; Female = 1. ^bAssociate/Sr. Associate = 1, Manager/Sr. Manager = 2. ^cLine of Service – Advisory as the reference group. ^dProportional reduction in sum of variance at each level. ^eProportional reduction in sum of variance at all levels (Snijders & Bosker, 2012). ^fOne of the limitations of pseudo R^2 in multilevel models with random slope is that it might result in a negative number when a new predictor at another level is added to the model (Kreft & Leeuw, 1998).

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

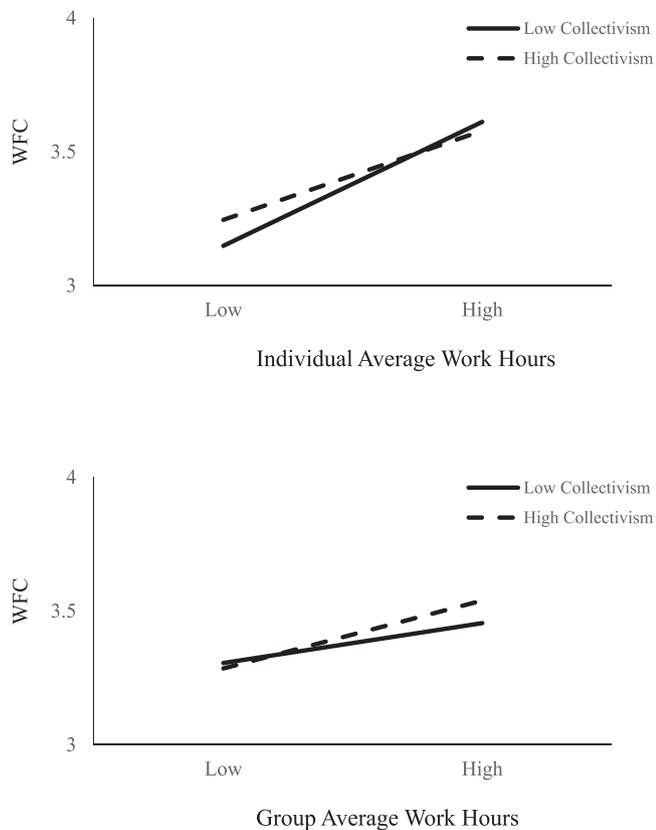


FIGURE 1 Interaction plot for collectivism and individual average work hours (top) and group average work hours (bottom), predicting WFC

Hypothesis 1 was supported as group average work hours were positively and significantly related to WFC controlling for family- and job-related stressors ($b = 0.04$, $SE = 0.004$, $p < 0.001$). In addition, the interaction between collectivism and individual's average work hours was significant ($b = -0.02$, $SE = 0.01$, $p = 0.02$) affirming findings in the literature from Yang et al. (2012). Hypothesis 2 indicated that the cultural value of collectivism moderates the relationship between the group average hours and perception of WFC, such that the relationship is stronger for cultures high in collectivism. Hypothesis 2 was supported as the interaction between group average work hours and collectivism was also significant ($b = 0.04$, $SE = 0.01$, $p = 0.01$). Probing the interaction at high and low levels of collectivism indicated that although the effect was significant at both levels, as expected, the effect was stronger at high levels of collectivism ($b = 0.05$, $SE = 0.004$, $p < 0.001$) than low levels of collectivism ($b = 0.03$, $SE = 0.01$, $p < 0.001$). Figure 1 shows the interaction effect of collectivism and individual work hours on the perception of WFC.

5 | DISCUSSION

The goals of this study were to understand how work hours among coworkers influence employees' perception of WFC and whether the effect of coworker hours on WFC is different across cultures. Our findings demonstrate that a workgroup's average working hours

influences individual group members' perception of WFC such that employees experience higher levels of WFC if their workgroup works longer hours. Moreover, we found that the effect of group average hours on WFC is stronger in countries high in collectivism.

These findings contribute to our understanding of work hours and WFC in several ways. Most importantly, the results show that the group average hours predict individual WFC after controlling for an individual's own working hours. These results demonstrate a new pathway through which group behaviors related to managing work and family affect individual perceptions of WFC. Consistent with prior research on work-family (Bhave et al., 2010; Van Emmerik & Peeters, 2009), our findings suggest that coworkers' work behavior expressed through hours worked affects individual WFC. The effect comes not only through direct social interactions but also indirectly, as individuals observe the hours kept by coworkers. This indirect influence is also consistent with research suggesting that groups develop behavioral norms that are transferred to group members' behavior through a social sensemaking process (Duff, Podolsky, Biron, & Chan, 2015; Robinson & O'Leary-Kelly, 1998).

Second, this research adds to the growing body of work that examines group-level predictors of WFC in general and work climate effects in particular (Bhave et al., 2010; Paustian-Underdahl & Halbesleben, 2014). Previous work linking group and individual WFC has focused on crossover effects, defined as the transmission of strain or felt conflict from one person to another in a social environment (Westman et al., 2009). Although the notion of crossover originated in the study of spouses (Bolger et al., 1989; Ferguson et al., 2015), our study suggests that crossover effects can also occur at the workgroup level more generally. Our findings show that employees also influence their coworkers through the examples they set by the hours they keep.

Finally, we show that the effect of group average hours on individual WFC differs across cultures for employees doing the same jobs with the same demands. This study helps to better understand how coworkers and cultural differences shape perceptions of WFC. Our results indicate that employees in high collectivist cultures are more strongly influenced by group work hours than are their counterparts in low collectivist cultures. Social norms and expectations have more influence on the behaviors of individuals socialized in high collectivist than individualist cultures (Chen et al., 1998; Davidson et al., 1976; Yang et al., 2012). Therefore, if a group develops a role expectation of long working hours, individuals in high collectivist cultures may be more sympathetic to their hardworking coworkers and feel a higher level of WFC compared with those in low collectivist cultures.

This research also helps to broaden our view of the cross-cultural differences in WFC. Although there are some notable exceptions (e.g., Allen, French, Dumani, & Shockley, 2015; Hill et al., 2004; Yang et al., 2012), the vast majority of research on WFC consists of single country studies and has been conducted mainly in the United States and Western countries. Relatively less attention has been given to the effect of cultural values on the ways in which individuals experience WFC (Ollier-Malaterre, Valcour, Den Dulk, & Kossek, 2013). A 2005 review of WFC literature by Eby et al. (2005) was unable to consider culture as a factor in the experience of WFC due to the lack of

cross-cultural studies. International work–family research has advanced since then (Ollier-Malaterre & Foucreault, 2017). However, our findings are significant in that they directly compare similar workers across many countries (Allen et al., 2015; Ollier-malaterre et al., 2013). These findings provide another view of the ways in which culture might play a role in the perception of WFC around the world.

This study benefitted from an extremely large and diverse multinational sample of 20 countries. We were able to control for career path, organizational support, and work demands by using employees from a network of firms doing the same work with parallel management practices. As with all studies, however, there are limitations in our methodology. We used single-source, self-report data for WFC, supervisor support, the frequency of contact outside of work, and work hours. This self-report data can be considered a potential limitation because some individuals may be influenced by social desirability in responding to the work hours question in the survey. To reduce such possibility, the participants were surveyed by a third-party academic research center and were clearly informed that their individual responses would not be shared with anyone. We also conducted additional analysis to examine the extent of common method bias for supervisor support and WFC. We used the single unmeasured latent method factor technique (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). The results indicated that the average percent of variance accounted for by proposed traits (64%) was higher than the average percent of variance accounted for by method (27%), suggesting low levels of bias.

Using a self-report measure of work hours may also pose another limitation. It is possible that some respondents may have interpreted this question to include such things as commuting time. However, this would be out of the norm for what is considered “work hours” in our sample as time accounting and billing practices are standardized across offices around the world and are included in new hire training. For these reasons, we believe that these employees were likely to have an accurate view of how much they and their coworkers were actually working. Future research might supplement this study with hours reported by the employer.

We also did not directly ask employees about the hours worked by their coworkers. However, we believe that individuals in this organization are likely to have good insight into the number of hours worked by their coworkers for several reasons. To begin, when employees are working at the firm offices, the floor plans are arranged by line of service to promote collaboration. It is easy to see when people come and go from the office. Additionally, when employees are working onsite on an audit or consulting engagement, they work directly together. Finally, the firm uses a centralized staffing system for engagements that managers use to monitor billable time. All employees have access to the system and can see which projects their coworkers are working on.

We do not have a direct measure of the number of multinational engagements for employees. There is some potential for employees to be more closely aligned with a virtual team than the coworkers with whom they share offices. There is also the potential for asynchronous virtual work to impact WFC independently of coworker hours.

Unfortunately, we do not have the data on the proportion of multinational versus national engagements in our sample. Although many employees interact with colleagues in different countries or time zones, we believe the vast majority of the firm's employees interact primarily with coworkers in their local units.

The presence of expatriates in workgroups poses another limitation. We excluded expatriates from the analysis because the cultural values of their home country that shaped their cognitive structures and ways of thinking may be different from those of their coworkers. However, it is possible that local employees are impacted by the behavior of expatriates as well, especially in groups with a large number of expatriates (e.g., Switzerland in our study). We conducted additional analyses by removing Switzerland. The results, however, did not meaningfully change, suggesting the robustness of the findings. Nevertheless, additional research is needed to explore how expatriates influence local WFC norms.

Our measurement and design also bring some inherent limitations. We used abbreviated scales in order to assess the key variables in our research model. Future research might use more complete measures of WFC and FWC. The cross-sectional design of this study also warrants caution in interpreting the results in terms of causality. Finally, the generalizability of the findings is another limitation of this study. The nature of the work and the workers surveyed need to be considered as well, given this study only included client-facing professional service employees. For example, these employees tend to work very long hours per week (i.e., an average of 49 hr per week year-round). Second, because these employees worked in service roles, they were often working closely with one another on client engagements and were always responsible for keeping track of their time and billable hours. Finally, our sample may not be representative because it is skewed toward younger employees and is more male-dominated than other workplaces. Gender diversity in public accounting is an ongoing concern in large firms. Although 48% of accounting graduates are women (Association of International Certified Professional Accountants, 2017), there are typically fewer in public accounting and consulting firms. In our sample, consistent with the overall company profile, 40% of respondents were women. Accordingly, the age and gender composition of the sample may limit the generalizability of the findings.

This research has important implications for organizations trying to help employees manage work and family. Most importantly, the findings on the effect of group average hours on individual WFC suggest that organizations should be concerned about the norms and culture of long hours in teams in addition to individual work hours. Our results suggest that a number of employees working long hours in a group can elevate the perception of WFC for all group members, regardless of whether the others in the group increase their hours to keep up. This effect of long workgroup hours means that managers and organizations, particularly those in highly collectivist countries, should educate all employees that choices regarding their weekly work hours can adversely affect their coworkers.

Our findings are part of an emerging line of research, which suggests the social environment at work needs to be addressed for

work-life initiatives. We intentionally limited our research to examining work hours. For similar potential group level effects, future research might investigate practices such as project management or electronic communications. The examples set by coworkers need to be considered along with the messages given by managers and the types of support practices offered by organizations to support work-life balance. Our study does not directly address the potential work-family issues for employees working across international boundaries. However, our results suggest that work hour is likely to be an important issue in multinational organizations in which employees work virtually across international borders. These companies need to be sensitive to the fact that norms for high work hours in one country are likely to have negative effects on employees in other countries with whom they interact.

This and other research on group-level effects on individual WFC help to deepen our understanding of how the work environment and coworkers play a key role in employee WFC. This research demonstrates the need to take national culture and context into account in work-family research. Coworkers' hours have a stronger influence on other employees in highly collectivist cultures, and this is likely the case for other types of group dynamics. This research suggests that there is more to be learned about the ways in which employees' WFC are affected by their coworkers in different types of jobs around the world.

ORCID

Hoda Vaziri  <https://orcid.org/0000-0001-6010-4950>

REFERENCES

- Adkins, C. L., & Premeaux, S. F. (2012). Spending time: The impact of hours worked on work-family conflict. *Journal of Vocational Behavior, 80*(2), 380–389. <http://doi.org/10.1016/j.jvb.2011.09.003>
- Aguinis, H., Gottfredson, R. K., & Culpepper, S. A. (2013). Best-practice recommendations for estimating cross-level interaction effects using multilevel modeling. *Journal of Management, 39*(6), 1490–1528. <http://doi.org/10.1177/0149206313478188>
- Allen, T. D., French, K. A., Dumani, S., & Shockley, K. (2015). Meta-analysis of work-family conflict mean differences: Does national context matter? *Journal of Vocational Behavior, 90*, 90–100. <http://doi.org/10.1016/j.jvb.2015.07.006>
- Amstad, F. T., Meier, L. L., Fasel, U., Elfering, A., & Semmer, N. K. (2011). A meta-analysis of work-family conflict and various outcomes with a special emphasis on cross-domain versus matching-domain relations. *Journal of Occupational Health Psychology, 16*(2), 151–169. <http://doi.org/10.1037/a0022170>
- Association of International Certified Professional Accountants. (2017). 2017 Accounting graduates supply and demand report. Retrieved from <https://www.aicpa.org/interestareas/accountingeducation/newsandpublications/downloadabledocuments/2017-trends-report.pdf>
- Bagger, J., & Li, a. (2011). How does supervisory family support influence employees' attitudes and behaviors? A social exchange perspective. *Journal of Management, 40*(4), 1123–1150. <http://doi.org/10.1177/0149206311413922>
- Beugelsdijk, S., Maseland, R., & van Hoorn, A. (2015). Are scores on Hofstede's dimensions of national culture stable over time? A cohort analysis. *Global Strategy Journal, 5*(3), 223–240. <http://doi.org/10.1002/gsj.1098>
- Bhave, D. P., Kramer, A., & Glomb, T. M. (2010). Work-family conflict in work groups: Social information processing, support, and demographic dissimilarity. *Journal of Applied Psychology, 95*(1), 145–158. <http://doi.org/10.1037/a0017885>
- Billing, T. K., Bhagat, R., Babakus, E., Srivastava, B., & Brew, F. (2014). Work-family conflict in four national contexts: A closer look at the role of individualism-collectivism. *International Journal of Cross Cultural Management, 14*(2), 139–159. <http://doi.org/10.1177/1470595813502780>
- Bolger, N., DeLongis, A., Kessler, R. C., & Wethington, E. (1989). The contagion of stress across multiple roles. *Journal of Marriage and the Family, 51*(1), 175–183.
- Brewer, P., & Venai, S. (2011). Individualism-collectivism in Hofstede and GLOBE. *Journal of International Business Studies, 42*(3), 436–445. <http://doi.org/10.1057/jibs.2010.62>
- Brislin, R. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology, 1*, 185–216. <http://doi.org/10.1177/135910457000100301>
- Byron, K. (2005). A meta-analytic review of work-family conflict and its antecedents. *Journal of Vocational Behavior, 67*(2), 169–198.
- Casper, W. J., Bordeaux, C., Eby, L. T., Lockwood, A., & Lambert, D. (2007). A review of research methods in IO/OB work-family research. *Journal of Applied Psychology, 92*(1), 28–43. <http://doi.org/10.1037/0021-9010.92.1.28>
- Casper, W. J., Vaziri, H., Wayne, J. H., DeHauw, S., & Greenhaus, J. (2018). The jingle-jangle of work-nonwork balance: A comprehensive and meta-analytic review of its meaning and measurement. *Journal of Applied Psychology, 103*(2), 182–214. <http://doi.org/10.1037/apl0000259>
- Chan, D. (1998). Functional relations among constructs in the same content domain at different levels of analysis: A typology of composition models. *Journal of Applied Psychology, 83*(2), 234–246. <http://doi.org/10.1037/0021-9010.83.2.234>
- Chatman, J. A., & Barsade, S. G. (1995). Personality, organizational culture, and cooperation: Evidence from a business simulation. *Administrative Science Quarterly, 40*(3), 423–443. <http://doi.org/10.2307/2393792>
- Chen, C. C., Chen, X. P., & Meindl, J. R. (1998). How can cooperation be fostered? The cultural effects of individualism-collectivism. *Academy of Management Review, 23*(2), 285–304.
- Chen, Z., Takeuchi, R., & Shum, C. (2013). A social information processing perspective of coworker influence on a focal employee. *Organization Science, 24*(6), 1618–1639. <http://doi.org/10.1287/orsc.2013.0820>
- Cheng, B. H., & McCarthy, J. M. (2013). Managing work, family, and school roles: Disengagement strategies can help and hinder. *Journal of Occupational Health Psychology, 18*(3), 241–251. <http://doi.org/10.1037/a0032507>
- Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling, 9*(2), 233–255. http://doi.org/10.1207/S15328007SEM0902_5
- Chiu, C. Y., Gelfand, M. J., Yamagishi, T., Shteynberg, G., & Wan, C. (2010). Intersubjective culture: The role of intersubjective perceptions in cross-cultural research. *Perspectives on Psychological Science, 5*(4), 482–493. <http://doi.org/10.1177/1745691610375562>
- Cialdini, R., & Trost, M. (1998). Social influence: Social norms, conformity and compliance. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (ed., Vol. 2) (pp. 151–192). New York: McGraw-Hill. <http://doi.org/10.2307/2654253>

- Colquitt, J. A., Noe, R. A., & Jackson, C. L. (2002). Justice in teams: Antecedents and consequences of procedural justice climate. *Personnel Psychology, 55*(1), 83–109.
- Davidson, A. R., Jaccard, J. J., Triandis, H. C., Morales, M. L., & Diaz-Guerrero, R. (1976). Cross-cultural model testing: Toward a solution of the etic-emic dilemma. *International Journal of Psychology, 11*, 1–13.
- DiRenzo, M. S., Greenhaus, J. H., & Weer, C. H. (2011). Job level, demands, and resources as antecedents of work–family conflict. *Journal of Vocational Behavior, 78*(2), 305–314. <http://doi.org/10.1016/j.jvb.2010.10.002>
- Duff, A. J., Podolsky, M., Biron, M., & Chan, C. C. A. (2015). The interactive effect of team and manager absence on employee absence: A multi-level field study. *Journal of Occupational and Organizational Psychology, 88*(1), 61–79. <http://doi.org/10.1111/joop.12078>
- Eby, L. T., Casper, W. J., Lockwood, A., Bordeaux, C., & Brinley, A. (2005). Work and family research in IO/OB: Content analysis and review of the literature (1980–2002). *Journal of Vocational Behavior, 66*(1), 124–197. <http://doi.org/10.1016/j.jvb.2003.11.003>
- Edwards, J., & Rothbard, N. (2000). Mechanisms linking work and family: Clarifying the relationship between work and family constructs. *Academy of Management Review, 25*(1), 178–199.
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology, 71*(3), 500–507. <http://doi.org/10.1037/0021-9010.71.3.500>
- Ferguson, M., Carlson, D., & Kacmar, K. M. (2015). Flexing work boundaries: The spillover and crossover of workplace support. *Personnel Psychology, 68*(3), 581–614. <http://doi.org/10.1111/peps.12084>
- Fischer, R., Ferreira, M. C., Assmar, E., Redford, P., Harb, C., Glazer, S., ... Achoui, M. (2009). Individualism–collectivism as descriptive norms: Development of a subjective norm approach to culture measurement. *Journal of Cross-Cultural Psychology, 40*(2), 187–213. <http://doi.org/10.1177/0022022109332738>
- Fisher, D. M. (2014). A multilevel cross-cultural examination of role overload and organizational commitment: Investigating the interactive effects of context. *Journal of Applied Psychology, 99*(4), 723–736. <http://doi.org/10.1037/a0035861>
- French, K. A., Dumani, S., Allen, T. D., & Shockley, K. M. (2018). A meta-analysis of work–family conflict and social support. *Psychological Bulletin, 144*(3), 284–314. <http://doi.org/10.1037/bul0000120>
- Frone, M. R., Russel, M., & Cooper, M. L. (1992). Antecedents and outcomes of work–family conflict: Testing a model of the work–family interface. *Journal of Applied Psychology, 77*(1), 65–78.
- Frone, M. R., Yardley, J. K., & Markel, K. S. (1997). Developing and testing an integrative model of the work–family interface. *Journal of Vocational Behavior, 50*(50), 145–167. <http://doi.org/10.1006/jvbe.1996.1577>
- Ganster, D. C., Rosen, C. C., & Fisher, G. G. (2018). Long working hours and well-being: What we know, what we do not know, and what we need to know. *Journal of Business and Psychology, 33*(1), 25–39. <http://doi.org/10.1007/s10869-016-9478-1>
- Gelfand, M. J., & Harrington, J. R. (2015). The motivational force of descriptive norms: For whom and when are descriptive norms most predictive of behavior? *Journal of Cross-Cultural Psychology, 46*(10), 1273–1278. <http://doi.org/10.1177/0022022115600796>
- Gelfand, M. J., Harrington, J. R., & Jackson, J. C. (2017). The strength of social norms across human groups. *Perspectives on Psychological Science, 12*(5), 800–809. <http://doi.org/10.1177/1745691617708631>
- Gelfand, M. J., Raver, J. L., Nishii, L., Leslie, L. M., Lun, J., Lim, B. C., ... Yamaguchi, S. (2011). Differences between tight and loose cultures: A 33-nation study. *Science, 332*(6033), 1100–1104. <http://doi.org/10.1126/science.1197754>
- Gibson, C. B., Maznevski, M. L., & Kirkman, B. L. (2009). When does culture matter? In R. S. Bhagat, & R. M. Steers (Eds.), *Cambridge handbook of culture, organizations, and work* (pp. 46–68). New York, NY: Cambridge University Press.
- Glomb, T. M., & Liao, H. (2003). Interpersonal aggression in work groups: Social influence, reciprocal, and individual effects. *Academy of Management Journal, 46*, 486–496.
- Grandey, A. A., & Cropanzano, R. (1999). The conservation of resources model applied to work–family conflict and strain. *Journal of Vocational Behavior, 54*, 350–370.
- Greenhaus, J. H., & Beutell, N. (1985). Sources of conflict between work and family roles. *Academy of Management Review, 10*(1), 76–88.
- Hammer, L. B., Kossek, E. E., Anger, W. K., Bodner, T., & Zimmerman, K. L. (2011). Clarifying work–family intervention processes: The roles of work–family conflict and family-supportive supervisor behaviors. *Journal of Applied Psychology, 96*(1), 134–150. <http://doi.org/10.1037/a0020927>
- Hammer, L. B., Kossek, E. E., Yragui, N. L., Bodner, T. E., & Hanson, G. C. (2009). Development and validation of a multidimensional measure of family supportive supervisor behaviors (FSSB). *Journal of Management, 35*(4), 837–856. <http://doi.org/10.1177/0149206308328510>
- Hill, J. E., Yang, C., Hawkins, A. J., & Ferris, M. (2004). A cross-cultural test of the work–family interface in 48 countries. *Journal of Marriage and Family, 66*(5), 1300–1316. <http://doi.org/10.1111/j.0022-2445.2004.00094.x>
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44*(3), 513–524. <http://doi.org/10.1037/0003-066X.44.3.513>
- Hobfoll, S. E. (2011). Conservation of resource caravans and engaged settings. *Journal of Occupational and Organizational Psychology, 84*(1), 116–122.
- Hofmann, D. A., & Gavin, M. B. (1998). Centering decisions in hierarchical linear models: Implications for research in organizations. *Journal of Management, 24*(5), 623–641. <http://doi.org/10.1177/014920639802400504>
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: SAGE.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. London: Sage.
- Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: Software of the mind. Revised and expanded*. New York: McGraw-Hill.
- Hox, J. J. (2010). *Multilevel analysis: Techniques and applications* (2nd ed.). New York: Routledge.
- Jang, S., Shen, W., Allen, T. D., & Zhang, H. (2018). Societal individualism–collectivism and uncertainty avoidance as cultural moderators of relationships between job resources and strain. *Journal of Organizational Behavior, 39*, 507–524. <http://doi.org/10.1002/job.2253>
- Jehn, K. A. (1995). A multimethod examination of the benefits and detriments of intragroup conflict. *Administrative Science Quarterly, 40*, 256. <https://doi.org/10.2307/2393638>
- Kirkman, B. L., Lowe, K. B., & Gibson, C. B. (2006). A quarter century of culture's consequences: A review of empirical research incorporating Hofstede's cultural values framework. *Journal of International Business Studies, 37*(3), 285–320. <http://doi.org/10.1057/palgrave.jibs.8400202>
- Kreft, I., & Leeuw, J. (1998). *Introducing multilevel modeling*. Thousand Oaks, CA: Sage Publications.

- Lapierre, L. M., Li, Y., Kwan, H. K., Greenhaus, J. H., Drenzo, M. S., & Shao, P. (2018). A meta-analysis of the antecedents of work-family enrichment. *Journal of Organizational Behavior*, 39, 385-401. Wiley-Blackwell. <http://doi.org/10.1002/job.2234>.
- Lee, S., McCann, D., & Messenger, J. (2007). *Working time around the world: Trends in working hours, laws, and policies in a global comparative perspective*. New York, NY: Routledge.
- Levine, J. M., & Moreland, R. L. (1991). Culture and socialization in work groups. In L. B. Resnick, J. M. Levine, & S. D. Teasley (Eds.), *Perspectives on socially shared cognition* (pp. 257-279). Washington: American Psychological Association. <http://doi.org/10.1037/10096-011>
- Lu, J., Siu, O.-L., Spector, P. E., & Shi, K. (2009). Antecedents and outcomes of a fourfold taxonomy of work-family balance in Chinese employed parents. *Journal of Occupational Health Psychology*, 14(2), 182-192. <http://doi.org/10.1037/a0014115>
- Lu, L., Gilmour, R., Kao, S., & Huang, M. (2006). A cross-cultural study of work/family demands, work/family conflict and wellbeing: The Taiwanese vs British. *Career Development International*, 11(1), 9-27.
- Luk, D. M., & Shaffer, M. A. (2005). Work and family domain stressors and support: Within- and cross-domain influences on work-family conflict. *Journal of Occupational and Organizational Psychology*, 78(4), 489-508. <http://doi.org/10.1348/096317905X26741>
- Lyness, K. S., & Judiesch, M. K. (2014). Gender egalitarianism and work-life balance for managers: Multisource perspectives in 36 countries. *Applied Psychology*, 63(1), 96-129. <http://doi.org/10.1111/apps.12011>
- Maas, C. J., & Hox, J. (2005). Sufficient sample sizes for multilevel modeling. *Methodology*, 1(3), 86-92. <http://doi.org/10.1027/1614-1881.1.3.86>
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98(2), 224-253.
- Mathieu, J. E., Aguinis, H., Culpepper, S. A., & Chen, G. (2012). Understanding and estimating the power to detect cross-level interaction effects in multilevel modeling. *Journal of Applied Psychology*, 97(5), 951-966. <http://doi.org/10.1037/a0028380>
- McSweeney, B. (2002). Hofstede's model of national cultural differences and their consequences: A triumph of faith-A failure of analysis. *Human Relations*, 55(1), 89-118. <http://doi.org/10.1177/0018726702551004>
- Michel, J. S., Kotrba, L. M., Mitchelson, J. K., Clark, M. A., & Baltes, B. B. (2011). Antecedents of work-family conflict: A meta-analytic review. *Journal of Organizational Behavior*, 32, 689-725. <http://doi.org/10.1002/job>
- Moen, P., Kaduk, A., Kossek, E. E., Hammer, L., Buxton, O. M., O'Donnell, E., ... Casper, L. (2015). Is work-family conflict a multilevel stressor linking job conditions to mental health? Evidence from the work, family and health network. In S. K. Ammons, & E. L. Kelly (Eds.), *Work and family in the new economy* (pp. 177-217). Bingley, UK: Emerald Publishing Limited. <http://doi.org/10.1108/S0277-283320150000026014>
- Moorman, R. H., & Blakely, G. L. (1995). Individualism-collectivism as an individual difference predictor of organizational. *Journal of Organizational Behavior*, 16(2), 127-142.
- Muthén, B. O., & Asparouhov, T. (2013). New methods for the study of measurement invariance with many groups. Retrieved from <http://www.statmodel2.com/download/PolAn.pdf>
- Netemeyer, R. G., Boles, J. S., & McMurrian, R. (1996). Development and validation of work-family conflict and family-work conflict scales. *Journal of Applied Psychology*, 81(4), 400-410. <http://doi.org/10.1037/0021-9010.81.4.400>
- Ng, T. W. H., & Feldman, D. C. (2008). Long work hours: A social identity perspective on meta-analysis. *Journal of Organizational Behavior*, 29, 853-880. <http://doi.org/10.1002/job>
- Nohe, C., Meier, L. L., Sonntag, K., & Michel, A. (2015). The chicken or the egg? A meta-analysis of panel studies of the relationship between work-family conflict. *Journal of Applied Psychology*, 100(2), 1-15. <http://doi.org/10.1037/a0038012>
- Ollier-Malaterre, A., & Foucreault, A. (2017). Cross-national work-life research: Cultural and structural impacts for individuals and organizations. *Journal of Management*, 43(1), 111-136. <http://doi.org/10.1177/0149206316655873>
- Ollier-malaterre, A., Valcour, M., Den Dulk, L., & Kossek, E. E. (2013). Theorizing national context to develop comparative work-life research: A review and research agenda. *European Management Journal*, 31(5), 433-447. <http://doi.org/10.1016/j.emj.2013.05.002>
- Ollo-López, A., & Goñi-Legaz, S. (2017). Differences in work-family conflict: Which individual and national factors explain them? *The International Journal of Human Resource Management*, 28(3), 499-525. <http://doi.org/10.1080/09585192.2015.1118141>
- Oyserman, D., Coon, H. M., & Kimmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, 128(1), 3-72. <http://doi.org/10.1037/0033-2909.128.1.3>
- Paustian-Underdahl, S. C., & Halbesleben, J. R. B. (2014). Examining the influence of climate, supervisor guidance, and behavioral integrity on work-family conflict: A demands and resources approach. *Journal of Organizational Behavior*, 35(4), 447-463. <http://doi.org/10.1002/job.1883>
- Peterson, M. F. (2004). Book review: Culture, leadership and organizations: The GLOBE study of 62 societies. *Administrative Science Quarterly*, 49(4), 641-647.
- Peterson, M. F., & Barreto, T. S. (2014). The like it or not proposition: Implications of societal characteristics for the cultural expertise and personal values of organization members. *Journal of Organizational Behavior*, 35(8), 1134-1152. <http://doi.org/10.1002/job.1977>
- Peterson, M. F., & Wood, R. (2008). Cognitive structures and processes in cross-cultural management. In P. B. Smith, M. F. Peterson, & D. C. Thomas (Eds.), *The handbook of cross-cultural management research* (pp. 15-34). Thousand Oaks, CA: Sage.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903.
- Postmes, T., & Spears, R. (1998). Deindividuation and antinormative behavior: A meta-analysis. *Psychological Bulletin*, 123(3), 238-259. <http://doi.org/10.1037/0033-2909.123.3.238>
- Postmes, T., Spears, R., Sakhel, K., & Groot, D. D. (2001). Social influence in computer-mediated communication: The effects of anonymity on group behavior. *Personality and Social Psychology Bulletin*, 27(10), 1243-1254. <http://doi.org/10.1177/01461672012710001>
- Powell, G. N., Francesco, A. M., & Ling, Y. (2009). Toward culture-sensitive theories of the work-family interface. *Journal of Organizational Behavior*, 30, 597-616. <http://doi.org/10.1002/job>
- Roberson, Q. M., & Colquitt, J. A. (2005). Shared and configural justice: A social network model of justice in teams. *Academy of Management Review*, 30(3), 595-607.
- Robinson, S. L., & O'Leary-Kelly, A. M. (1998). Monkey see, monkey do: The influence of work groups on the antisocial behavior of employees. *Academy Management Journal*, 41(6), 658-672. <http://doi.org/10.2307/256963>

- Ronen, S., & Shenkar, O. (2013). Mapping world cultures: Cluster formation, sources and implications. *Journal of International Business Studies*, 44(9), 867–897. <http://doi.org/10.1057/jibs.2013.42>
- Ruppanner, L., & Maume, D. J. (2016). Shorter work hours and work-to-family interference: Surprising findings from 32 countries. *Social Forces*, 95(2), 693–720. <http://doi.org/10.1093/sf/sow057>
- Salancik, G. R., & Pfeffer, J. (1978). A social information processing approach to job attitudes and task design. *Administrative Science Quarterly*, 23(2), 224–253.
- Schaffer, B. S., & Riordan, C. M. (2003). A review of cross-cultural methodologies for organizational research: A best-practices approach. *Organizational Research Methods*, 6, 169–215. <http://doi.org/10.1177/1094428103251542>
- Shockley, K. M., Shen, W., DeNunzio, M. M., Arvan, M. L., & Knudsen, E. A. (2017). Disentangling the relationship between gender and work-family conflict: An integration of theoretical perspectives using meta-analytic methods. *Journal of Applied Psychology*, 102(12), 1601–1635. <http://doi.org/10.1037/apl0000246>
- Shteynberg, G. (2015a). Shared attention. *Perspectives on Psychological Science*, 10(5), 579–590. <http://doi.org/10.1177/1745691615589104>
- Shteynberg, G. (2015b). Shared attention at the origin: On the psychological power of descriptive norms. *Journal of Cross-Cultural Psychology*, 46(10), 1245–1251. <http://doi.org/10.1177/0022022115600260>
- Smith, P. B. (2004). Nations, cultures, and individuals: New perspectives and old dilemmas. *Journal of Cross-Cultural Psychology*, 35(1), 6–12. <http://doi.org/10.1177/0022022103260460>
- Smith, P. B. (2006). When elephants fight, the grass gets trampled: The GLOBE and Hofstede projects. *Journal of International Business Studies*. <http://doi.org/10.1057/palgrave.jibs.8400235>, 37, 915–921.
- Smith, P. B., Dugan, S., Peterson, M. F., & Leung, K. (1998). Individualism: Collectivism and the handling of disagreement. A 23 country study. *International Journal of Intercultural Relations*, 22(3), 351–367. [http://doi.org/10.1016/S0147-1767\(98\)00012-1](http://doi.org/10.1016/S0147-1767(98)00012-1)
- Snijders, T. A. B., & Bosker, R. J. (2012). *Multilevel analysis: An introduction to basic and advanced multilevel modeling (2nd Edition)*. London: Sage Publishers. <http://doi.org/10.1080/10705511.2013.797841>
- Spector, P. E., Allen, T. D., Poelmans, S. A. Y., Lapiere, L. M., Cooper, C. L., O'Driscoll, M., ... Widerszal-Bazyl, M. (2007). Cross-national differences in relationships of work demands, job satisfaction, and turnover intentions with work-family conflict. *Personnel Psychology*, 60(4), 805–835. <https://doi.org/10.1111/j.1744-6570.2007.00092.x>
- Spector, P. E., Cooper, C. L., Poelmans, S., Allen, T. D., O'Driscoll, M., Sanchez, J. I., ... Yu, S. (2004). A cross-national comparative study of work-family stressors, working hours, and well-being: China and Latin America versus. *Personnel Psychology*, 57, 119–142.
- Taras, V., Kirkman, B. L., & Steel, P. (2010). Examining the impact of culture's consequences: A three-decade, multilevel, meta-analytic review of Hofstede's cultural value dimensions. *Journal of Applied Psychology*, 95(3), 405–439.
- ten Brummelhuis, L. L., & Bakker, A. B. (2012). A resource perspective on the work-home interface: The work-home resources model. *American Psychologist*, 67(7), 545–556.
- Thibaut, J. (2017). *The social psychology of groups*. New York: Routledge. <http://doi.org/10.4324/9781315135007>
- Triandis, H. C. (1994). Theoretical and methodological approaches to the study of collectivism and individualism. In U. Kim, H. C. Triandis, Ç. Kâğıtçıbaşı, S.-C. Choi, & G. Yoon (Eds.), *Individualism and collectivism: Theory, method, and applications* (pp. 41–51). Thousand Oaks, CA: Sage Publications, Inc.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview Press.
- Triandis, H. C. (2001). Individualism–collectivism and personality. *Journal of Personality*, 69(6), 907–924. <http://doi.org/10.1111/1467-6494.696169>
- Triandis, H. C., & Gelfand, M. J. (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology*, 74(1), 118–128. <http://doi.org/10.1037/0022-3514.74.1.118>
- Van De Schoot, R., Lugtig, P., & Hox, J. (2012). A checklist for testing measurement invariance. *European Journal of Developmental Psychology*, 9(4), 486–492.
- van Dyne, L., Vandewalle, D., Kostova, T., Latham, M., & Cummings, L. (2000). Collectivism, propensity to trust and self-esteem as predictors of organizational citizenship in a non-work setting. *Journal of Organizational Behavior*, 21(1), 3–23. [http://doi.org/10.1002/\(SICI\)1099-1379\(200002\)21:1<3::AID-JOB47>3.0.CO;2-6](http://doi.org/10.1002/(SICI)1099-1379(200002)21:1<3::AID-JOB47>3.0.CO;2-6)
- Van Emmerik, I. J. H., & Peeters, M. C. W. (2009). Crossover specificity of team-level work-family conflict to individual-level work-family conflict. *Journal of Managerial Psychology*, 24(3), 254–268. <http://doi.org/10.1108/02683940910939331>
- Vandenberg, R. J., & Lance, C. E. (2000). A review and synthesis of the measurement invariance literature: Suggestions, practices, and recommendations for organizational research. *Organizational Research Methods*, 3(1), 4–70. <http://doi.org/10.1177/109442810031002>
- Voydanoff, P. (2004). The effect of work demands and resources on work-to-family conflict and facilitation. *Journal of Marriage and Family*, 66(2), 398–412.
- Voydanoff, P. (2005). Consequences of boundary-spanning demands and resources for work-to-family conflict and perceived stress. *Journal of Occupational Health Psychology*, 10(4), 491–503. <http://doi.org/10.1037/1076-8998.10.4.491>
- Wayne, J., Casper, W., Matthews, R. A., & Allen, T. (2013). Family-supportive organization perceptions and organizational commitment: The mediating role of work-family conflict and enrichment and partner attitudes. *Journal of Applied Psychology*, 98(4), 606–622. <http://doi.org/10.1037/a0032491>
- Wendt, H., Euwema, M. C., & Van Emmerik, I. J. H. (2009). Leadership and team cohesiveness across cultures ☆. *The Leadership Quarterly*, 20, 358–370. <http://doi.org/10.1016/j.leaqua.2009.03.005>
- Westman, M., Brough, P., & Kalliath, T. (2009). Expert commentary on work-life balance and crossover of emotions and experiences: Theoretical and practice advancements. *Journal of Organizational Behavior*, 30(5), 587–595.
- Yang, L., Spector, P. E., Sanchez, J. I., Allen, T. D., Poelmans, S., Cooper, C. L., ... Woo, J.-M. (2012). Individualism–collectivism as a moderator of the work demands–strains relationship: A cross-level and cross-national examination. *Journal of International Business Studies*, 43(4), 424–443. <http://doi.org/10.1057/jibs.2011.58>
- Yang, N., Chen, C., Choi, J., & Zou, Y. (2000). Sources of work-family conflict: A Sino-US comparison of the effects of work and family demands. *Academy of Management Journal*, 43(1), 113–123.
- Zalesny, M. D., & Ford, K. J. (1990). Extending the social information processing perspective: New links to attitudes, behaviors, and perceptions. *Organizational Behavior and Human Decision Processes*, 47, 205–246.

AUTHOR BIOGRAPHIES

Hoda Vaziri is a Postdoctoral Fellow at Purdue University. Dr. Vaziri received her PhD from the University of Texas at Arlington. Her research interests center around work–nonwork interface, individual's multiple identities, and emotion and well-being at work.

George S. Benson is an Associate Professor at the University of Texas at Arlington. Dr. Benson is an Affiliated Researcher at the University of Southern California Center for Effective Organizations.

Maritza Salazar Campo is an Associate Professor at the University of California, Irvine. Dr. Salazar received her PhD from New York University and is an Affiliated Researcher at the University of Southern California Center for Effective Organizations.

SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

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