



## A QUASI-EXPERIMENTAL STUDY ON FLEXIBLE WORK ARRANGEMENTS

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### ABSTRACT

**Purpose** - Flexible work arrangements (FWAs) have gained popularity among organizations and researchers because of their connection to positive employee and work outcomes. This quasi-experiment investigated the effects of FWAs on work-life balance, work-family conflict and job satisfaction. It also examined work-life balance as a mediator and work social support as a moderator.

**Methodology** - In a post-test design only quasi-experimental study, 110 employees from a utility company in the United States were assigned to work in one of three experimental conditions (ROWE, telecommuting or control) for 3 months.

**Findings**- The ROWE group had higher work-life balance compared to other groups. Work-life balance was a mediator. Work social support was a moderator such that ROWE did not lead to a greater job satisfaction compared to telecommuting, except when employees who had low work social support.

**Conclusion**- These findings provide additional insights about how FWAs can benefit employees and organizations.

**Keywords:** Work-life balance, flexible work arrangements

**JEL Codes:**

## 1. INTRODUCTION

In early 2017, an amusing video of a live BBC interview went viral. Robert Kelly, a professor at a Korean university, was giving a serious interview to BBC via Skype from his home office when, in the middle of the discussion, a toddler came in through the door behind him, and danced towards his desk. As he was trying to push her aside with embarrassment and apologies, a baby in a walker came in, followed by the mother who rushed in, grabbed the children, and walked out. Prof. Kelly apologized further, and continued with the interview as the children cried outside. More than 25 million people watched this video, which provided a great example of the challenges of balancing work, personal and family life in today's work environment.

As the number of dual-earner couples and single parent families grow, people are increasingly faced with the realities of actively engaging in both work and family roles. In today's organizations, employees experience interference between work and non-work responsibilities (Schieman, Milkie, & Glavin, 2009), consequently suffering from conflicting roles within work and family (Byron, 2005; Kelly, Moen, & Tranby, 2011). As a result, there is a growing desire among employees for access to flexible work arrangements (FWA). In fact, nearly 80% of workers said they would like to have more FWA options (Aequus Partners, 2010). In response to this demand, more than 50% of organizations surveyed by the Society of Human Resource Management [SHRM] offered various FWA options, and correspondingly employee usage has increased significantly in the last five years (SHRM, 2015a). Workplace flexibility is now seen as an integral work-life strategy to meet the changing personal needs of both men and women during all stages of life across the globe (SHRM, 2015b). Organizations that provide flexible benefits are perceived supportive and attractive to future employees (Beauregard & Henry, 2009).

In the following paragraphs, types of flexible work arrangements and their impact on job satisfaction and work-family conflict are discussed. The mediational role of work-life balance, and the moderational role of work social support on these effects are also mentioned.

## 2. LITERATURE REVIEW

### 2.1. Types of Flexible Work Arrangements

Although there are different types of FWAs at workplaces, the present study focuses on two most commonly known FWAs: Telecommuting and results only work environment (ROWE). Telecommuting (or flexplace) allows flexibility in terms of work location. Telecommuters can work remotely anywhere such as home, a satellite office, telework center, road location, or some combination thereof (Musson & Tietze, 2004; Nagurney, Dong, & Mokhtarian, 2003). Telecommuting offers many benefits to employees, such as avoiding commute time and traffic, achieving a more holistic life, enhancing quality of life, and reducing stress ((Musson & Tietze, 2004; Mokhtarian, Salomon, & Choo, 2005). The ability to telecommute allows employees to operate independently and to combine work and private tasks, such as household tasks and taking care of children, which ultimately allows them to be more productive at work and home (Vermaas & Bongers, 2007). It also provides benefits to organizations. Telecommuting reduces office stress (Mokhtarian, Bagley & Salomon, 1998), and increases productivity (SHRM, 2015), organizational loyalty, job satisfaction, employee attraction and retention (Bailey & Kurland, 2002; Haddon & Lewis, 1994; Hunton, 2005; Pinsonneault & Boisvert, 2001). Consequently, telecommuting eases traffic congestion in highly populated cities as well as conserving gas and improving air pollution, thereby reducing environmental degradation (Hunton, 2005; Nagurney et al., 2003).

Results only work environment (ROWE) offers flexibility in terms of location and time. ROWE allows employees to work wherever they want, whenever they want, as long as the work gets done (Ressler & Thompson, 2008). *“Participating in ROWE means focusing on results, not on time norms and practices regulating the amount and timing of time spent at one’s desk or in the office”* (Moen, Kelly & Hill, 2011, p. 185). Similar to telecommuting, physical attendance at meetings is usually optional in a ROWE. It gives a sense of time adequacy and control over schedule, which in turn enhances energy, mastery, psychological well-being, health, and decreases emotional exhaustion, somatic symptoms and psychological distress (Moen, Kelly, & Lam, 2013), and productivity (Conlin, 2006). Turnover rate and turnover intentions are lower for employees participating in the ROWE initiative (Moen et al., 2011).

The purpose of the present study is to examine the effects of these two FWAs (telecommuting and ROWE) on job satisfaction and work-family conflict, and investigate the mediational role of work-life balance, and the moderational role of work social support on these effects. The next sections briefly review the impact of FWAs on these key variables, and present our hypotheses.

### 2.2. FWAs and Job Satisfaction

Having workplace flexibility, in the form of telecommuting or ROWE, has important consequences for employees and organizations. One of the landmark studies on FWAs was a survey of 474 employees of an accounting division of a large multinational corporation (Goodale & Aargard, 1975). This study suggested that workplace flexibility policies have positive effects on both the employee and the organization such as reduced absenteeism and improved job attitudes (Goodale & Aargard, 1975). In a more recent study of 6,451 International Business Machines (IBM) employees, FWAs were reported to benefit both individuals and businesses: as a personal benefit, there was a decreased percentage of employees with work-family difficulty, and as an employer benefit, employees with perceived flexibility actually worked longer hours (Hill, Hawkins, Ferris, & Weitzman, 2001). Workplace flexibility is one initiative that requires no specific fiscal investment, while simultaneously creating higher levels of attraction, retention, engagement, productivity, and wellness (WorldatWork, 2015). Surveys of JP Morgan Chase and Eli Lilly employees indicated that employees with access to flexibility report higher job satisfaction (Corporate Voices for Working Families, 2005). Similarly, a national survey of employees found that those with access to flexible work options reported greater job satisfaction, engagement, and organizational loyalty (Brown, Wong, & McNamara, 2009).

Why do FWAs lead to positive job outcomes? Self-actualization represents growth of an individual toward fulfillment of the highest needs (Maslow, 1943). Based on Herzberg’s two-factor theory (1968), FWAs should lead to more positive job attitudes because greater autonomy and independence fulfills self-actualization needs. Moreover, according to Ronen (1984), flexible work schedules increase personal autonomy, responsibility and job knowledge which could lead employees to have more positive feelings about their jobs. Job autonomy as a product of FWAs enables employees to allocate their resources (such as time), and structure the way in which the job is performed (Schmidt & Neubach, 2007). Eventually they can optimize job satisfaction (Baltes et al., 1999; Fried & Ferris, 1987; Macan, 1994; Roberts & Foti, 1998). Based on this theoretical approach and previous research, we predicted that the type of FWA with greater job autonomy should result in higher job satisfaction.

Since ROWE does not only provide flexibility over place, but also flexibility over time, we predicted that ROWE will result in greater job satisfaction than telecommuting (Hypothesis 1).

### 2.3. FWAs and Work Family Conflict

Many U.S. organizations have adopted FWAs to reduce work family conflict (WFC) which arises when participation in work role makes participation in family role (or vice-versa) more challenging and difficult (Greenhaus & Beutell, 1985; Kelly, Moen & Tranby, 2011). Employees who experience WFC perceive the two roles as incompatible. In general, WFC negatively affects mental health, potentially causing depression, is associated with lower job satisfaction and organizational commitment, higher turnover intentions, and higher burnout and job-related stress (Allen, Herst, Bruck, & Sutton, 2000). It is also related to psychological distress and depressive symptoms (Allen et al., 2000; Grzywacz & Bass, 2003; Thomas & Ganster, 1995), anxiety disorders (Grzywacz & Bass 2003), lower vitality (Kristensen, Smith-Hansen, & Jansen 2005), and less well-being (Grant-Vallone & Donaldson 2001).

According to the Resource Theory (Edwards & Rothbard, 2000; Goode, 1960), employees have limited resources in terms of time, attention and energy which are needed for both work and family. When the demands of family-role drain the resources needed to meet the demands of the work role (or visa vis), WFC arises (Grandey & Cropanzano, 1999; Greenhaus & Beutell, 1985). Employees who engage in FWAs have flexibility to determine the best way to allocate time, attention and energy in an optimal way. Flexibility provides them with discretion over when and where work is completed, and serves as a resource which can be allocated in a way to minimize work-family conflict (Lapierre & Allen, 2012). Previous research and meta-analytic reviews indicate that employees who report more control over their schedules have less work-family conflict (Byron, 2005; Kossek, Lautsch, & Eaton, 2006; Moen et al., 2008).

Additionally, flexibility creates the opportunity for self-control and autonomy demands (Schmidt & Neubach, 2007). Employees with FWAs can use one or more of the self-control demands (impulse control, resisting distractions, and overcoming inner resistances) to help prevent the factors contributing to WFC (Allen, Johnson, Kiburz, & Schockley, 2013; Schmidt & Neubach, 2007). According to Karasek's Demand-Control Theory of Work Stress (Karasek & Theorell, 1990), employees with higher levels of control are better able to cope with demands, thereby reporting lower levels of job strain. Thus, higher levels of control that comes with workplace flexibility are associated with lower levels of strain resulting in less WFC. Accordingly, we predicted that ROWE is associated with less WFC than telecommuting (Hypothesis 2).

### 2.4. Work-Life Balance as a Mediator

As employees gain more flexibility at work, they need to better manage work-life balance (WLB) to avoid possible conflicts at home and at work. Desirable outcomes, such as job satisfaction and minimal work-family conflict, are likely to occur when FWAs allow for a successful balance between work and life (Allen, Johnson, Kiburz, & Shockley, 2013). WLB has been defined as "the extent to which individuals are equally engaged in and equally satisfied with work and family roles" (Greenhaus, Collins, and Shaw (2003, p. 513). It consists of three dimensions: *Time balance* refers to equal time devoted, *involvement balance* refers to equal psychological effort and presence invested, and *satisfaction balance* refers to equal satisfaction expressed across work and family roles (Rantanen, Kinnunen, Mauno, & Tilemann, 2011). Greenhaus et al. (2003) regard work-family balance as a continuum where imbalance in favor of the work role lies at one end, and imbalance in favor of the family role lies at the other end, and *balance* lies in the middle favoring neither work nor family role. Lack of WLB is associated with lower health and well-being (Frone, 2003; Frone, Russell, & Cooper, 1997; Grzywacz & Bass, 2003), lower organizational performance and greater turnover intention (Allen et al., 2000; Kossek & Ozeki, 1999) and greater sickness absence (Jansen et al., 2006). A good balance between work and life can benefit employers as it is linked to increased life satisfaction and creativity and efficiency (Zelenski, Murphy, & Jenkins, 2008).

According to the Role Balance Theory, people can hold multiple roles simultaneously and successfully under the right conditions (Marks & MacDermid, 1996; Verbrugge, 1983). Zuzanek (2000) found that part-time employed mothers had less worries, slept more, enjoyed life more, showed greater satisfaction with their use of time, and said they were healthier. People who fully engage in different roles tend to experience less role strain and depression, and exhibit higher self-esteem and innovation (Marks & MacDermid, 1996). Thus, a successful balance between work and individual roles is attainable under the right circumstances.

One such circumstance is the work flexibility which allows more personal time (e.g., Nomaguchi, Milkie, & Bianchi, 2005), reduces sleep disruptions (Maume, Sebastian, & Bardo, 2009), and prevents role overload and role strain (Marks & MacDermid, 1996). Additionally, in accord with Expectancy Theory (Porter & Lawler, 1968), offering workplace flexibility may be seen as a reward that contributes to WLB. Thus, employees put in more effort, feel less stressed, and feel more supported by work. Studies among working mothers consistently found that, if FWAs are available, they are less stressed, better able to balance work and family life, more likely to stay with their employer, and thus be more satisfied with their jobs (Allen, 2001; Ezra & Deckman, 1996; Hill, Jacob, et al., 2008). On the other hand, if FWAs are not offered to the employees who hold

multiple roles, they may suffer from role conflicts and burnout. The scarcity model assumes that individuals have a finite amount of energy and, when involved in multiple roles, these roles tend to drain them and inevitably cause stress or inter-role conflict, resulting in an undesirable psychological state (Aryee, 1992). Therefore, support systems in organizations, such as opportunities for work flexibilities, are necessary for a well-balanced life.

In sum, FWAs deteriorate employees' stress of making family arrangements, allow them to use their time and energy more effectively, find a balance between work and life, thereby reducing the conflict between work and family, and enhancing job satisfaction (Hill, Grzywacz, et al., 2008; Thoits, 1987). Accordingly, we hypothesized that as the work arrangements get more flexible, the employees are better able to find balance between work and family, and thereby experience higher job satisfaction (Hypothesis 3a), and less WFC (Hypothesis 3b) (i.e., WLB is the mediator).

## **2.5. Work Social Support as a Moderator**

There are work circumstances in which undesirable effects of work family conflict can be reduced. For instance, having social support at work can reduce negative effects of stressors in life. Work social support (WSS) refers to perceived support from organizations (e.g., formal family-friendly programs and initiatives), supervisors (e.g., managers' support and willingness to give employees flexibility by informally supporting family-friendly benefits), co-workers and sub-ordinates with respect to receiving proper feedback, appreciation, recognition, sharing duties and responsibilities, opportunity to take time off when in need, and emotional support (Carlson & Perrewé, 1999; Thomas & Ganster, 1995). WSS can be work-related (e.g., information sharing, job sharing, appraisal and affirmations) or non-work related (e.g., in-house store or services, gym subsidies, emotional concern and empathy) (House, 1981). Perceived managerial support has been identified as an important predictor of employee job satisfaction, commitment, productivity, and organizational loyalty (Baruch-Feldman, Brondolo, Ben-Dayan, & Schwartz, 2002; Bond et al., 1998; Dikkers et al., 2007; Thomas & Ganster, 1995). Work-related social support, especially from supervisors, may make one's work situation less stressful by providing emotional support, instrumental aid or perhaps providing greater flexibility or control over one's situation (Anderson, Coffey, & Bverly, 2002; Thomas & Ganster, 1995). Additionally, family supportive organizational culture moderated subordinates' perceptions of family supportive supervisor behaviors and work engagement (Rofcanin, Las Heras, & Bakker, 2016). More specifically, Rofcanin et al. (2016) found that supervisors' supportive behaviors increased work engagement only when the subordinates felt supported at work. They concluded that "supportive family practices at work such as provision of flexible work schedules to employees will influence one's family domain positively, leading to resource gains in both domains" (Rofcanin et al., 2016, p. 214).

WSS has been identified as an important resource or coping mechanism that can reduce the negative effects of stressors (Carlson & Perrewé, 1999; Thomas & Ganster, 1995). Employees who benefit from social support at work feel valued and are more engaged at work. According to the Leader-Member Exchange (LMX) theory (Dansereau, Graen, & Haga, 1975), if the relationship between the employee and his/her supervisor and organization is solid and based on trust, then it is likely to lead to satisfying outcomes. In a trusting and collaborative relationship, a supportive supervisor may make work situations less stressful (Roskies & Lazarus, 1980). On the other hand, when the work environment is not supportive, FWA plays a greater role. Enabling the workers to decide on their work design and schedule offsets the obstacles of low WSS by allowing to choose a workplace that is less stressful and more pleasurable. Supporting this argument, supervisor support was found to moderate the influence of perceived WFC on job satisfaction and organizational commitment such that when employees had supervisory support when WFCs arise, they were more likely to be satisfied with their jobs and stay with the organization. (Stephens & Sommer, 1993). Accordingly, we predicted that WSS moderates the relationship between FWA and job satisfaction such that when there is low WSS, more flexibility at work (i.e., ROWE) leads to higher job satisfaction than less flexibility (i.e., telecommuting). However, when there is high WSS, no such difference exists (Hypothesis 4).

## **2.6. The Importance of the Present Study**

Findings with respect to the impact of FWAs on organizational outcomes such as productivity, WFC, job satisfaction are inconclusive (Higgins, Duxbury, & Julien, 2014). For example, Byron's (2005) meta-analytic study showed a moderate negative effect size between FWA and WFC, whereas Mesmer-Magnus and Viswesvaran (2006) found no such relationship. The effects of FWA on work-related criteria were highly variable ranging from zero or little change to substantial positive change (Dunham et al., 1987; Pierce et al., 1989). Inconsistencies in the literature may be due to the type of FWA used in these studies. For example, Byron focused on flextime, whereas Mesmer-Magnus and Viswesvaran focused on ROWE. It may also be due to moderators that were not examined in these studies. Another reason may be the lack of experimental design that gives higher internal validity in these studies. In fact, past research is heavily correlational or anecdotal (Pierce & Newstrom, 1983).

There is no prior research that simultaneously examined the impact of different types of FWAs on job satisfaction and WFC, with WLB as a mediator and WSS as a moderator. Moreover, research demonstrating the added benefits of a relatively new FWA (i.e., ROWE) is very limited. Therefore, the present study aims to make an important contribution to the current literature by: (a) expanding research on different types of FWAs; (b) examining the role of ROWE and telecommuting in a

quasi-experimental design; (c) comparing the effects of FWAs on WFC and job satisfaction; (d) understanding the potential mediating role of WLB; (e) exploring conditions under which the effects of telecommuting and ROWE might differ (i.e., WSS as a moderator); and (f) guiding organizations that are looking to attract, retain, and engage employees to expand their FWA offerings based on the research and thus maintain a competitive advantage.

### **3. DATA AND METHODOLOGY**

#### **3.1. Participants**

The participants were full-time employees of a large, international utility company in Southern California. They were from the technical services, engineering, and tariff programs and services departments. Although department tasks differ, workload levels were the same across the departments. A total of 110 exempt and non-exempt employees from various backgrounds and ethnicities participated in this study. Of this total, 7 cases were deleted because of incomplete responses (Final N = 103, 73 men)<sup>1</sup>. Their age ranged from 41 to 60 years old, and they have been with the company for at least 1-5 years. Almost half of the participants (52%) had zero dependents to care for, including children or elderly, and 35% of them had 1-2 dependents.

#### **3.2. Procedure**

In a posttest only quasi-experimental design, the participants were divided into 3 conditions: ROWE (representing FWA with greater flexibility), telecommuting (representing FWA with less flexibility), and control (representing no flexibility). The assignment into these groups was made by the site managers.

The participants in the ROWE and telecommuting conditions were trained and informed about their new work conditions. The ROWE participants could work from anywhere, anytime, as long as the expectations set by the manager were met. The telecommuting participants could work remotely during core work hours. The managers set the ground rules on meeting attendance and response time to emails and phone calls. The three groups (ROWE, telecommuting and control) were selected from a single business unit with similar work assignments under the same senior executive to control for possible confounds. At the end of the 3-month implementation period, the participants were given a packet to complete which included the measures for this study. They were ensured that their responses would remain anonymous.

##### **3.2.1. Job Satisfaction**

The Job Satisfaction Relative to Expectations scale (Bacharach, Bamberger & Conley, 1991) was utilized to measure job satisfaction (reliability alpha = .88). This five-item survey assesses the degree of agreement between employee expectations and the various aspects of his/her job. The participants were asked to indicate the degree to which they were satisfied with various aspects of their jobs (sample item: "Your present job when you compare it to others in the organization"). Responses were rated on a 4-point Likert-type scale from 1 (very dissatisfied) to 4 (very satisfied).

##### **3.2.2. Work-Family Conflict**

The Work Family Conflict (WFC) scale which measures the degree of conflict at work and in the family, as well as the inter-role conflicts between the requirements and obligations of both work and family spheres was utilized (Gutek, Searle, & Klepa, 1991). This scale has two dimensions of work-family interference: work to family and family to work. Sample items included "After work, I come home too tired to do some of the things I'd like to do," and "My personal demands are so great that it takes away from my work,". This scale has 8 items on a 5-point Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree) (reliability alpha = .81-.83 in Gutek et al., 1991).

##### **3.2.3. Work Social Support**

Etzion (1984) developed the Work Social Support (WSS) scale which measures the degree of support features present at work (e.g., feedback from others, opportunity to take time off when in need, emotional support and sharing of duties), and the consistency of the support received from supervisors, coworkers and sub-ordinates. There are 10 items on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) (reliability alpha = .84).

##### **3.2.4. Work-Life Balance**

This is a single item developed by the researcher to assess overall perceptions of work-life balance: "I have a reasonable balance between my work and personal life." The item is rated on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

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<sup>1</sup> This unequal gender distribution is mostly attributed to the nature of the work of engineering, which is predominantly a male-dominated field.

5 (Strongly Agree). A high score indicates that the respondent perceives to have a balance between his/her work life and personal life.

### 3.2.5. Demographics

To obtain information about the demographic characteristics of the participants, 12 questions about gender, position in the organization, tenure, hours worked, daily hours of sleep received, and commute time were asked in an open-ended format.

## 4. FINDINGS AND DISCUSSIONS

Prior to performing the statistical analyses, the data were screened for partial missing data. If a participant did not answer one or more questions, the missing data were input using mean substitution because less than 5% of the data were missing. In the WSS measure, the last item "subordinates" was left off the analysis because majority of the participants had no subordinates.<sup>2</sup> Analyses of the distributions indicated that the skewness and kurtosis were within the acceptable range (-1 and 1). Levene's Test of Homogeneity indicated that variances were homogeneous with respect to FWAs. The reliability coefficients had acceptable range (Cronbach's alpha = .83 - .92). Principal Components Analysis was conducted on each measure, and confirmed the inclusion of all items in each scale. Thus, a composite score was created by taking the average of the items for each measure.

### 4.1. Hypothesis Testing

Correlations were presented in Table 1. As expected, greater WFC was associated with less job satisfaction, WSS and WLB ( $r < .01$ ). Job satisfaction, WSS and WLB were positive correlated with each other ( $r < .01$ ). To test hypotheses 1 and 2, a One-way ANOVA was performed (See Table 2). There was no difference between the FWA conditions with respect to job satisfaction,  $F(2, 96) = 2.14, p > .05, \eta^2 = 0.43$ . There was a marginal difference with respect to WFC,  $F(2, 99) = 2.89, p = .06, \eta^2 = 0.55$ . Thus, there was no support for Hypothesis 1 and 2. However, there was a significant effect on WLB,  $F(2, 96) = 11.84, p < .05, \eta^2 = .20$ . Tukey's post-hoc tests showed that WLB was stronger in the ROWE condition ( $M = 4.03, SE = .21$ ) than in the control condition ( $M = 2.45, SE = .25$ ), 95% CI = .81 - 2.36,  $p < .05$ , and the telecommuting condition ( $M = 3.20, SE = .22$ ), 95% CI = .01 - 1.66,  $p < .05$ . The employees in the ROWE condition experienced stronger WLB than those in the telecommuting and control conditions. The mean telecommuting did not differ from the control condition ( $p > .05$ ).

There is a relatively large consensus among statisticians that the total effect is not a gatekeeper for mediational tests (e.g., Hayes, 2009; Shrout & Bolger, 2002; also see Preacher & Selig, 2012 for detailed explanation). Thus, despite the absence of a direct effect from FWA to job satisfaction and WFC, we concluded that it is legitimate to perform the mediational analyses to test Hypotheses 3a and 3b. We performed two mediational tests by applying the bootstrapping method (Hayes, 2009; Preacher and Hayes, 2004; 2008) and the Sobel test (Sobel, 1982). These tests revealed that WLB mediated the effects of FWA on job satisfaction ( $z = -2.92, p = .00$ , the bootstrapped estimate of the indirect effect had a 95% confidence interval of -.26 to -.05, see Figure 1). These tests also revealed that WLB mediated the effects of FWAs on WFC ( $z = 3.15, p = .00$ , the bootstrapped estimate of the indirect effect had a 95% confidence interval of .06 to .26, see Figure 2). These results supported Hypotheses 3a and 3b and showed that WLB is a mediator of the relationship between FWA and job satisfaction, and between FWA and WFC.

Finally, to test Hypothesis 4, hierarchical regression was used to analyze the moderation by entering FWA, work social support and the interaction term. The  $R^2$  change for the interaction term was .03,  $F(2, 93) = 2.44, p = .09$ , failing to provide support for this hypothesis.

Because a priori theory (Rosenthal & Rosnow, 2008) suggests to further look at comparisons of high versus low levels of WSS, the differences between work conditions at 1 standard deviation (SD) below the mean of WSS, at the mean of WSS, and 1 SD above the mean of WSS were examined. At 1 SD above the mean on WSS (people high in WSS), there were no differences between ROWE ( $M = 3.34, SE = .11$ ), control ( $M = 3.40, SE = .11$ ), or telecommuting ( $M = 3.45, SE = .16$ ), all  $t_s < .78$ , all  $p_s > .54$ . At the mean of WSS, there were no differences between ROWE ( $M = 3.01, SE = .09$ ), control ( $M = 2.86, SE = .08$ ), or telecommuting ( $M = 2.85, SE = .09$ ), all  $t_s < 1.28$ , all  $p_s > .20$ . However, at 1 SD below the mean on WSS (people low in WSS), there were significant differences between work conditions such that ROWE ( $M = 2.77, SE = .12$ ) was higher in mean job satisfaction than both control ( $M = 2.47, SE = .09$ ),  $t(93) = -1.97, p = .05$ , and telecommuting ( $M = 2.42, SE = .12$ ),  $t(93) = -2.09$ ,

<sup>2</sup> Before proceeding with hypothesis testing, the researcher wanted to ensure that results would not differ by respondents' sex. An analysis was performed to look at the interaction of sex and flexible work arrangements in predicting WFC and job satisfaction. A 2(1=male, 2=female) x 3(3 levels; 0=ROWE, 1=control, 2=telecommuting) ANOVA was used to look at the interaction of sex and flexible work arrangement. No significant results were found for WFC,  $F(2,96) = .35, p = .71$ , or job satisfaction,  $F(2,96) = .65, p = .53$ . Thus, sex was dropped from all subsequent analyses. However, some of the results were in the expected direction. In all three conditions, females felt they had more WSS than males, and WLB was lowest among females in the control condition.

$p < .05$ . While the interaction was not significant and therefore these effects should be interpreted cautiously, these are consistent with Hypothesis 4. With employees that have low work social support and ROWE, job satisfaction is higher compared to those employees that have low work social support and telecommuting.

#### **4.2. Discussion**

The results mainly showed that ROWE produced greater WLB compared to the telecommuting and control groups. Moreover, while ROWE did not result in significantly lower WFC compared to the other groups, the mean was in the right direction. The results are consistent with previous findings on the benefits of greater schedule control and job flexibility on WLB (Hill et al., 2001; Tausig & Fenwick, 2001) as well as work-family fit, which refers to employees' perceptions of whether they have enough time and appropriate work schedules to pursue personal and family activities (Kelly et al., 2011). ROWE possibly gave employees a greater sense of control of how and when they accomplished their work, thus reducing their experience of work strain. Our findings support the theoretical perspectives on the linkage between the general concepts of autonomy, control and flexibility, and positive psychological outcomes (e.g., Self-Determination Theory by Deci, Olafsen & Ryan, 2017 and the Demand-Control Theory of Work Stress by Karasek & Theorell, 1990).

Our results did not indicate that FWAs had a direct positive effect on job satisfaction. This was not consistent with previous studies and meta-analyses (e.g., Baltes et al., 1999). One reason could be that our sample was about 70% male; only 35% had dependents and 52% had no dependents. Ford et al. (2007) conducted a meta-analysis of the stressors in work and family domains and found that a significant level of variability in job satisfaction is accounted for by family-domain factors. Other studies have further shown that FWAs tend to be more beneficial for employees with greater family obligations (Ashforth, Kreiner, & Fugate, 2000; Shockley & Allen, 2007). The extent to which FWAs will yield positive outcomes is dependent on employee perceptions of the usability and availability of such work schedules (Hayman, 2009). It is likely that participants in our sample did not have significant family obligations weighing on them, making the need for ROWE or telecommuting less critical; hence FWAs did not have much impact on their overall job satisfaction.

Another factor related to the effectiveness of FWAs is job demand. Our utility company sample had a large proportion of technical professionals with high job demands. Research has shown that greater schedule control may actually increase the interference of work into family and personal life for employees who work very long hours and have huge workloads, such that the flexibility may instead be interpreted as never-ending work (Blair-Loy, 2009; Chesley, 2005; Schieman et al., 2009). Under these conditions, FWAs would not necessarily have enhanced our participants' job satisfaction.

Our major finding was the mediational role of WLB. The autonomy and schedule control provided by FWAs help employees achieve and perceive a more reasonable balance between their work and personal lives, enabling them to feel more fulfilled inside and outside work (Byrne, 2005). When employees perceive they can successfully engage in their multiple work and personal roles simultaneously, they experience less WFC and stress (Marks & MacDermid, 1996), and thereby feel more satisfied with their jobs overall. This finding provides support for the theoretical perspectives presented by Greenhaus and Powell (2006) who argued that increased resources at work (such as FWA) enhances performances in family. It also supports prior research that showed that work-to-family enrichment mediated the relationship between FWAs and job satisfaction as well as turnover intentions (McNall, Masuda, & Nicklin, 2009). Thus at a time when employees are reporting an alarmingly unhealthy balance between work and personal lives (Businesswire, 2016), this finding suggests that organizations and managers who are supportive in supporting employees and helping them find a favorable balance between their multiple work and life roles through flexible work options will reap multiple benefits including a favorable reputation among employees and job applicants as a whole.

Finally, the results of the moderational analysis suggest that FWAs were particularly beneficial for ROWE employees who had low work social support. Recent research by Moen et al. (2016) showed that increased supervisor support for employees' personal lives helped promote the well-being effects of a flexible organizational initiative similar to ROWE. However, when the environment is not supportive, ROWE employees have the advantage because their flexibility in both work time and work place allows them to control how they accomplish their tasks independently, without being either too dependent on the support of their supervisors, peers and others, or negatively impacted by the lack of said support. Telecommuters, by the very nature of their work arrangement, are expected to work normal business hours albeit at home or some other place; thus they would likely have to interact more with co-workers doing interdependent tasks. They may feel a sense of isolation due to the lack of face-to-face time, which would contribute to lower job satisfaction especially when the organization does not provide a means to maintain strong social networks and emotional support. As Ronen (1984) suggested, FWA employees doing highly interdependent tasks during core hours while being outside company premises may experience issues with communication, supervision and job performance. Our findings suggest that the kind of FWA provided by organizations needs to take in consideration the kind of social support available to employees. This may also be related to the kind of work employees do (independent or interdependent) for which different FWAs may be more appropriate.

### 4.3. Implications for Organizations

Overall, our results emphasize the importance of providing more FWA options for employees as these can enhance work-life balance, and subsequently reduce work-family conflict and increase job satisfaction. However, organizations need to understand what types of FWAs are appropriate to meet the specific needs of employees. They must consider what FWAs would fit specific jobs, organizational cultures, and industries. They must also ensure that the appropriate resources are provided to ensure that their FWA programs are successful, starting with obtaining managerial buy-in and support. In most cases, managers, and employees, will need training to work virtually. This will involve setting clear goals and performance expectations, and learning how to communicate and coordinate virtually. Within the ROWE arrangement specifically, managers will need to shift their mindset to focus on employee work outcomes, rather than attendance in the work place.

### 4.4. Limitations and Future Research

A key strength of this study was the quasi-experimental investigation of two FWAs and a control group, within a large international organization based in Southern California. However this study also had several limitations, notably the inability to assign participants randomly to experimental conditions, the unequal representation of males and females (due to the type of departments that participated), and the inability to match pretest and posttest data (due to organizational concerns of anonymity and lack of proper data coding). Hence though the groups were generally similar (under a broader departmental umbrella), we cannot confidently state that the findings in this study were purely due to the experimental manipulations. Future studies should look into randomly assigning FWAs to work groups in order to better control for internal validity.

It is possible that employees who were assigned to different experimental groups held varied expectations or perceptions about their job positions and responsibilities. That is, employees in the ROWE, telecommuting, and control groups may have developed perceptions about their workload and set expectations in line with the work flexibility offered to them. For instance, it is feasible that employees in the ROWE group could have anticipated higher workload because ROWE allowed for the most flexibility. The amount of actual workload, as well as expected workload could be considered a potential confound, and should be examined in future studies of this sort.

Not having equal male and female participants was previously discussed as a potential reason some findings differed from other research. Future studies should seek to achieve a greater balance of participation from both genders, and looking at other occupations and industries. Also, as a cautionary note, these results may apply more to white-collar workers than to blue-collar workers.

While this study explored work-life balance, work-family conflict, job satisfaction and work-life balance related to FWAs, other factors can be explored in the future. First, the quality of the relationship between leaders and followers can be examined as a moderator of the relationship between ROWE and job satisfaction. Personality could also be the focus of a future study, with potential moderators including individual need for autonomy and/or affiliation. For example, high affiliation can be characterized by enjoying the company of others, which can lead to more constructive social relationships with a given flexible work arrangement. Isolation and feelings of loneliness, especially for telecommuters, should also be examined. If isolation is found to be associated with telecommuting, organizations may reconsider providing this option or may offer an alternative and only offer telecommuting two to three times a week. Third, future studies can look at social support, not just at work but outside of work, including family and friends. Fourth, culture is an important factor because collectivistic and individualistic cultures define and value social support differently. In collectivistic cultures, people believe in interdependence, and the self is made meaningful through relationships, whereas individualistic cultures emphasize the independence of self from others (Hofstede, 1980; Triandis, 1990). It would be interesting to study both work and non-work social support and how these may affect FWAs and associated employee and work outcomes in collectivistic and individualistic cultures.

The time frame of this study could also be considered a limitation, as employees were surveyed after only a 3-month period of having FWAs. In such a short period of time, it is unknown whether employees in the ROWE group perceived work as *something to do* rather than *someplace to go*. Because ROWE represents a culture shift which takes time, future researchers should examine FWAs longitudinally (i.e., over a 6-month period or longer). A longitudinal study could provide more accurate results as to the stability of employee job satisfaction and work-family conflict. Finally, this study utilized a single-item measure of work-life balance. Future studies should use pre-established scales of work-life balance.

## 5. CONCLUSION

The objective of the present study was to examine the effects of FWAs on job satisfaction and work-family conflict. The present study not only demonstrated how newer ways of working can enhance perceptions of work-life balance, something which is increasingly valued by today's workforce. At the same time, the findings also suggested that certain FWAs may yield more benefits than others under certain conditions of work social support.

It is known that not only the new generation, but all generations are hoping to have a balance in their lives. FWAs allow individuals to have control over their lives, with the autonomy and flexibility allowed. It is hoped that this study will contribute to the effective implementation of FWAs within organizations who are especially concerned about attracting the younger generation, having high employee satisfaction and well-being. Organizations will also see the benefits of reducing work-family conflict by increasing work-life balance. It is also hoped that with this study employees' own positive experiences at work and in their personal lives are taken into consideration in organizations. Moving forward, leaders can relinquish the idea that putting in a specific amount of time in the office proves a hard working workforce, and instead create a culture of accountability with clear roles and responsibilities.

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