

## Work Demands Influencing Job Satisfaction: Testing for the Moderating Effects of Job Control Within Non-profit Employees

Akanksha Anand, Kenrick D. Cato Columbia University, New York, United States

Thirty-seven non-profit employees in New York City participated in this cross-sectional survey study. Drawing on conservation of resources theory, the study examines whether the hypothesized relationship of workload demands at work with job satisfaction is moderated by job control. This cross-sectional survey research makes a unique contribution to the non-profit literature by uncovering the moderating role of job control for employees in emotionally challenging non-profit settings. We tested the hypothesized relationships using hierarchical regression. Results emphasize the significance of managing employees by providing higher levels of autonomy over their work during higher work demands.

Keywords: conservation of resources theory, stress & buffer hypothesis, human services, job characteristics, job satisfaction

#### **Background and Purpose**

Job satisfaction is directly associated with workplace autonomy, and indirectly with turnover (Häusser, Mojzisch, Niesel, & Schulz-Hardt, 2010; Knapp, Smith, & Sprinkle, 2017). Moreover, job satisfaction within non-profits is different from other public organizations in terms of employees' work roles and job control over resources (Borzaga & Tortia, 2006; Häusser et al., 2010; Lee, 2016; Knapp et al., 2017). Human service jobs are emotionally challenging job roles, and less is known about the job resources, which could increase employee's job satisfaction (Johnson, Cooper, Cartwright, Donald, Taylor, & Millet, 2005; Newell, 2019). Kahn and Byosiere (1992) posited that caregivers (e.g., social workers) as professionals are more likely to suffer from emotional exhaustion because of the intense display of emotions. Additional occupational stressors specific to the jobs include threats of violence (e.g., frontline employees in the emergency department, social work) or work overload (e.g., clinicians and teachers). These are listed "high risk" occupations (Johnson et al., 2005; Borzaga & Tortia, 2006; Lizano, 2015; Newell, 2019).

#### Introduction

Human service organizations rely significantly on their employees to achieve their goals in service delivery.

Akanksha Anand, Ph.D., postdoctoral research scientist, Nursing Scholarship & Research, Columbia University, New York, United States

Kenrick D. Cato, Ph.D., assistant professor, School of Nursing, Columbia University, New York, United States.

Often these employees are drawn to work these organizations because of the vision and meaningfulness of work in providing services (Light, 2002; Borzaga & Tortia, 2006). A substantial amount of employee well-being research demonstrates the exposure to high word demands which has a detrimental effect on the level of job satisfaction human service employees experience at work (Lizano & Barak, 2015; Schelbe, Radey, & Panisch, 2017). This development of increasing workloads and stress-related negative health outcomes are common amongst human service workers (Astvik & Melin, 2013; Griffiths, Royse, Culver, Piesher, & Zhang, 2017). Consistent with these findings is a decade of literature, which identifies job stress as a serious problem within human service settings (Benton & Auston, 2010; Abramovitz & Zelnick, 2015). Employees facing acute levels of work-related stressors experience job strain, which is positively associated with lowered job performance, job dissatisfaction, fatigue, and anxiety (C. L. Cooper, C. P. Cooper, Dewe, & O'Driscoll, 2001; Abramovitz & Zelnick, 2015; Preston, 2018). Consequently, workers could face health related consequences of sleep disorder, depression, diabetes, obesity, high blood pressure, and cardiovascular diseases (Zeytinoglu & Denton, 2006; Brand, Coon, Fleming, Carroll, Bethel, & Wyatt, 2017). At an organizational level, strain incurs associated costs of medical expenses, staff turnover, training expenses, and the diminishing quality of service provided to the clients (Smith & Shields, 2013; Travis, Lizano, & Mor Barak, 2016).

To date, numerous studies have examined factors related to turnover and burnout amongst employees within human services (Kim & Kao, 2014; Kim & Stoner, 2008). Despite the research attention and evidence, very few studies within human services have empirically investigated how job control as a job characteristic could potentially play a buffering role in job demands negative effects on job satisfaction. This would impart help understand the elements of work characteristics interactions with their effects on worker well-being. And recognizing factors that contribute to how control over ones work in highly work challenging situations, thereby increasing job satisfaction could add valuable insights and intervention aiming to increase retention and well-being of employees.

The Hackman and Oldham's (1974) job characteristics model suggests five core job dimensions which potentially are affecting employees and their work-related outcomes, including job satisfaction. The five core job dimensions are characterized as job autonomy, feedback, skill variety, task identity, and task significance. Work demands are a particularly important job characteristic to investigate because of the growing knowledge and technological advances, which influence the levels of control in human services jobs. These human service jobs specifically emphasize the use of emotional, cognitive, and interpersonal skills and resources contrarily to other occupations. Nonetheless, the job characteristics and resources such as job control must be made available to workers for effectively and efficiently dealing with challenging work environments with high caseloads. Drawing on work stress and buffer hypotheses (Karasek et al., 1998) and Hobfoll's (2001) Conservation of Resources (COR) theory, this study examines the interactive relationship between work demand, and job control on workers attitude, behaviors, and well-being.

Past research shows that job control moderates the relationship between job demands on job strain using the Job Demand and Resources (JD-R) model (Bakker, Demerouti, Taris, Schaufeli, & Schreurs, 2003; Bakker, Denerouti, & Verberke, 2004) and job resources being important predictors of stress and strain (Hakanen, Bakker, & Shaufeli, 2006). However, studies on JD-R model have been limited to work characteristics and, as a result, the role of *personal resources* of employees could be potential determinants of employee's adaptation to their work

environments (Hobfoll, 1989; Judge, Locke, & Durham, 1997). To further examine the role of job control as a personal resource in the JD-R model, the present study highlights the corollaries from Conversation of Resources (COR) theory (Hobfoll, 1989; 2002).

Similarly, occupational researchers have proposed substantial modification to the JD-R model both conceptually and theoretical implications. Eatough and Spector (2014) suggested introducing the non-linearity to the JD-R model of linear conceptual basis. Theoretically scholars (Berset, Semmer, Elfering Amstad, & Jacobshagen, 2009; Sonnentag & Zijlstra, 2006) emphasized substituting the model's primary casual mechanism to active learning. Therefore, the present study integrates both the interactive effect using the stress and buffer hypotheses (Karasek et al., 1998) and Hobfoll's (2001) Conservation of Resources (COR) theory, to test for the non-linear demand by job control interaction of 253 human service employees from a non-profit agency in New York City. In doing so, this empirical study also addresses the dearth job control and work demands stain inducing studies' within the non-profits literature.

#### Strain and Buffer Hypothesis

The Demand-Control (DC) model identifies two psychosocial job characteristics critical to regulating employee well-being at work. Work demands are described as workloads, time demands. Job control pertains to job autonomy meaning the discretion over one's use of jobs skills, and knowledge in decision-making over job duties (Häusser, Mojzisch, Niesel, & Schulz-Hardt, 2010; Theorell, Karasek, & Eneroth, 1990). Though this model suggests two most prominent predictions based on job demand and job control's interactive effects on strain, strain and buffer hypotheses propose that the imbalance of demands and control at work can lead to stress and performance deficits. The discrepancies between work demands and control at work are impacting employee well-being and work environments. Therefore, the impact of high work demands, and lower levels of control heighten perceptions of strain (i.e., strain hypothesis), whereas higher levels of job demand and higher levels of job control decrease the negative effect of perceived strain (i.e., buffer hypothesis) (Karasek et al., 1998). The combined effect of high job demands and inadequate levels of job control at work lowered employees' performance and cognitive arousal (Subhani, Malik, Kamel, Saad, & Nandagopal, 2015). Employees who are unable to meet their required work goals experience work anxiety that then transforms into job dissatisfaction. Work anxiety inhibits the effective cognitive processing of job-related information that in turn hinders the new work related learning, skills, and strategies to solve problem at work (Eysenck, Dearkshan, Santos, & Calvo, 2007). When employees attribute inability to perform as a personal ineffectiveness at work, they experience high level of strain perceptions and lower their self-beliefs to cope effectively with challenging demands.

The buffer hypothesis by Karasek et al.'s (1998) argues that high control jobs allow for employees to spend their energetic resources into active learning of work methods on the job even when demands are difficult. To conclude, regardless of the levels of demands encountered, lowered levels of control will steadily increase, and high levels of control steadily decrease job strain (Karasek et al., 1998). Across-the-board literature reviews have noted that adequate support for DC's model strain hypothesis, but weak evidence for its buffer hypothesis. Some studies discovered statistically significant findings (Van der Doef & MAes, 1999; Häusser et al., 2010) and others revealed null findings (Vegchel, Jonge, Söderfeldt, Dormann, & Schaufeli, 2004; Kim & Stoner, 2008).

#### **Conservation of Resources Theory**

On the contrary to the Karaseks's DC model's linear effects, COR theory presents non-linear effects of job demand and control (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014) on job satisfaction. Studies acclaim moderator non-linear findings explaining both strain and buffer inducing effects on employee well-being. Previous research studies in occupational stress literature describe job control or autonomy which is a main job characteristic which acts as a resource to reducing strain and buffer the negative effect of work demands on increasing satisfaction under strenuous conditions (Livne & Goussinsky, 2018; Kahn & Byosiere, 1992).

Drawing on Hobfoll's (1989) Conservation of Resources theory, it proposes that resources tend to accumulate over time. And employees who work in resourceful environment are more likely to develop feelings of self-confidence and positively related to work strategies. Van den Broeck, Vansteenkiste, De Witte, and Lens (2008) reported that satisfaction in achieving basic psychological need of autonomy or control mediated the relationship between job demands and emotional exhaustion. Apparently, job resources including job control which when attained would have the employees feel less exhausted and more vigorously satisfied at work. Similarly, employing work related strategies preserve personal resources by exercising control and this shapes the way employees understand and respond to their environments.

Despite the growing evidence on the work demands experienced by frontline human service employees, less examined are the workplace resources and strategies leading to job satisfaction. Conservation of Resources (Hobfoll, 2001) theory argues how employees could potentially use job resources from their environment to prevent and mitigate the adverse effect of work stressors on job satisfaction. Only a few empirical studies have examined the influence of job control on the work demands and job satisfaction association within non-profits. In previous studies, challenging work situations for human service employees are found to experience lower job satisfaction. A better understanding of how workers experience their jobs is needed to improve their working conditions. Employees working in challenging environments require increased job control (Tims, Bakker, & Derks, 2013). However, there appears to be a gap in the literature as to how job control mitigates or prevents the adverse effects of work demands within human services. To address, this gap in the non-profit research literature in the study tested the following hypotheses:

Hypothesis 1: A significant main effect for workload demands on job satisfaction. Employees who report higher perceptions of work demands would be negatively related to job satisfaction.

Hypothesis 2: A significant main effect for job control on job satisfaction. Employees who report higher perceptions of job control would be positively related to job satisfaction.

Hypothesis 3: A significant and negative higher workload demands—lower job control interaction. Employees who experience high job demand and lowered levels of job control will be negatively related to job satisfaction.

Hypothesis 4: A significant and positive higher workload demands—higher job control interaction. Employees who experience high levels of work demand and higher level of job control will be positively associated with job satisfaction.

Hypothesis 5: After controlling for age, gender, and tenure, higher workload demands—higher job control interaction will be positively associated with job satisfaction.

Hypothesis 6: After controlling for gender, higher workload demands—higher job control interaction will be positively associated with job satisfaction.

Hypothesis 7: After controlling for tenure, higher workload demands—higher job control interaction will be positively associated with job satisfaction.

Support was found for some of these hypotheses. The study's hypothesized non-linear work demand by linear-control interaction is present in this cross-sectional data collected. This data set was analyzed using the Hobfoll's (2001) COR theory and strain-buffer hypothesis (Häusser et al., 2010; Theorell et al., 1990), to empirically support how work resources like job control or autonomy provide discretion, skill, and knowledge at work. Similarly, newer studies, like Chung-Yan (2010) reported a non-linear work demand of job complexity by linear control interaction effect on job satisfaction and turnover intentions amongst employed from various occupations. Graphical representation of this data from the cross-sectional study uncovers a pattern for low and high control jobs influence job satisfaction within non-profit employees.

# Indicators for Employee Well-Being: Work demands, Job Control, and Job Satisfaction Method

Participants and procedure. We recruited participants from a large non-profit agency in New York City. The independent staff training director and development directors provided access to monthly staff meetings where we administered the surveys in person. The study considered case managers from different types of social welfare services agencies (e.g., community service and public assistance) located in the city of New York. To account for possible confounding effects of socio-economic stats (Fila, Purl, & Griffeth, 2017), participating office is being one of the main office locations (e.g., the main office and outreach offices) representing geographical locations in urban and suburban setting. The staff training director and development directors were recruited to distribute the letter of introduction, survey questionnaires and self-administered stamped envelopes to all human service employees working in this human service agency. The objectives of this research study, which confidentiality safeguards, the voluntary nature of participation, were mentioned in the letter of introduction. Research ethics committee review and approval was sought for employee wellbeing surveys from an Institutional Review Board (IRB) of a large University in New York City prior to conducting the study (IRB-AAK0215). After the human service employees filled out the surveys at these monthly meetings, they were requested to place the completed questionnaire in a self-addressed stamped envelope, personally sealed the envelop and mailed the sealed envelope to the researcher. At the time period when employees were completing the survey questionnaire in a conference room, the management staffs were instructed to not be present. According to Dilman's (2007) survey methods, the participants received two follow up mailings to improve the survey's response rate.

The sample consisted of full-time 253 non-profit employees. The non-profit agency provided service including in housing, employment, food stamps, temporary assistant, Medicaid, and seniors' services. Out of 253 survey questionnaires distributed at the non-profit agency meetings, 135 useable questionnaires were returned making a final response rate of 53%. Eighty percent of the sample self-reported as female 69%, as white 46%, 29% African American. The age, organizational tenure, and job tenures for the sample respondents were, 40, 5.7, and 4.6 years, respectively. Lastly, 79.5% of these non-profit employees indicated obtaining an undergraduate degree or higher degree.

Sample characteristics and data collection. Data for this cross-sectional correctional design were collected during the fall of 2016. This study data were collected by surveying 253 non-profit employees working at a human service agency located in New York City (53% response rate) in fall 2016. The surveys were conducted in-person at staff monthly meetings where each employee was provided with a survey questionnaire, letter of introduction, and an envelope to place the complete questionnaire. The survey took approximately 15 minutes to complete. The Cronbach's alphas for the study's measures were above the accepted cutoff. For construct validity, all survey items loaded onto their respective factors at above 0.41. Discriminant validity was established using maximum likelihood estimation with varimax rotation. Procedures by Aiken and West (1981) methods were utilized to test the three hypotheses in SPSS 25. No item cross-loaded on to another factor above 0.28. Finally, except for two extreme outliers, no violations of OLR regression were noted.

#### Measures

#### **Criterion Variable**

Job satisfaction is operationalized as an emotional state that occurs while one is working. For this reason, eight items from the Weiss, Dawis, England, and Lofquist (1967) and Weiss (2002).

According to Conservation of Resources theory, it operationalizes satisfaction as an outcome of a lack of work resources or conditions job satisfaction. For this reason, six items are from the job satisfaction scale by Weiss et al. (1967). These measures ask respondent to indicate the degree to which they are satisfied with the various aspect of their jobs on a scale of 1 through 6, where "1 = "Strongly dissatisfied" and "6 = "Strongly satisfied". These items included: On my present job, this is how I feel about: The working conditions at my job, the feeling of accomplishment I get from the job, the competence of my supervisor in making decisions that impact my job, overall, how do you feel about your job? This Job Satisfaction Scale of consisted of 8-point Likert scale items (Weiss, Dawis, England, & Lofquist, 1967). All the items on the scale demonstrated a Cronbach's alpha loadings  $\alpha = 0.86$ . To assess the validity of the measure maximum likelihood and varimax rotations on the items performed, none of the items cross loaded below 0.40 and showed a loading between 0.61 and 0.86.

#### **Predictors and Covariates**

Job control items were obtained from the Jackson, Wall, Martin, and David's (1993) scale. These items included three items of timing control and three items of methods control at work. All these items, such as "How much control do you have over which work duties to perform in your job?", "How much control do you have over the speed at which you perform your work duties?", and "How much control do you have over when to perform work duties associated with your job?" are focused clearly on the control an employee exercises in one's job responsibilities. Job control refers to the workload and pressure a worker experiences to complete more in too little time. The response categories for this Likert measure ranged from 1 = "None" to 6 = "A great deal". The response scale and the scoring on the measure described above, with a higher score representing higher control. The internal consistency of the measure for this sample was 0.83. The validity was tested using varimax rotation and maximum likelihood estimation the factor loadings ranged from 0.65 to 0.83. All factor loadings loaded on their respective factor with all above 0.40. Then on reviewing the work demand and control literature, some variables, like age, gender, and level of education, were considered as covariates. Because each of these co-variables failed to change or modify the statistical significance for the present study's hypotheses, none of the variables were

included in the final Moderated Hierarchical Multiple Regression (MHMR) analyses (Spector & Brannick, 2011).

Emotional job demands refer to the nature of affective component an employee experiences in completing their work or an extent to which employees' experiences are in stressful situations. Emotional job demands were measured using items from the Dutch Questionnaire on the Experience and Evaluation of Work (Van Veldhoven, de Jonge, Broersen, Kompier, & Meijman, 2002). Some of the items included "Is your work very emotionally demanding?" and Do you face emotionally charged situations in your work?". Reliability analysis showed Cronbach alpha of  $\alpha = 0.85$ . The discriminant and construct validity were analyzed using maximum likelihood with varimax rotation with factors loadings = 0.76-0.81.

Work demands are a multifaceted construct which consisted of on the job roles which are both qualitative and quantitative in nature. Quantitative work demands refer to the amount of work employees could do in a short amount of time, or do they have a great deal of work to do. Qualitatively the job roles refer to dealing with uncertainties at work causing role ambiguity of conflicting roles relevant to the job roles (Karasek, 1979; Katz & Kahn, 1966; Rabinowitz & Stumpf, 1987). Due to the ambiguities and problems faced within frontline human service workers, a pertinent work demands scale was used. Work demands have been measured using a Dutch scale developed and validated by Veldhoven and Meijman (1994), which consisted of an eight-item question on work demands measured on a six-point Likert quantitative scale. The items included questions, like "Do you work under time pressure?", "Do you have to work extra hard to finish a task?", "Do you have problems with the pace of work?", and "Do you have problems with the workload?". Items were rated on a six-point Likert scale ranging from 1 = "Never" to 6 = "Always". The Cronbach alpha of the summative scale was  $\alpha = 0.85$ . To assess the validity of the measure maximum likelihood and varimax rotations on the items performed, items showed a loading between 0.73 and 0.88. The factor items loaded entirely on the construct.

The theoretically appropriated control variables were age, gender, race, job status, and tenure observed using a both single-item and multiple item measure. The measures asked the respondents their gender included the respondents indicating by a check box in the response categories. Gender data were collected for the tendency of overrepresentation of women in public and non-profit sector jobs than men (Lanfranchi & Narcy, 2015). Information on respondent's race was collected for earlier studies which show that whites workers are slightly more satisfied with their jobs than their black colleagues (Koh, Shen, & Lee, 2016). Jobs status and tenure was collected with previously known data on how these constructs impact job satisfaction and organizational outcomes in non-profits (Mor Barak, Lizano, Kim, Duan, Rhee, Hsiao, & Brimhall, 2016).

#### **Statistical Analyses**

Table 1 contains the number of cases, means standard deviations, reliabilities, and correlations coefficient for the study sample. Steps suggested by Tabachnick, Fidell, and Ullman (2007) were used to determine if violations of Ordinary Least Squares (OLS) regression were present in the sample. OLS regression was tested for skewness, kurtosis for normality, center leverage values and Cook's distance for extreme outliers, variance inflation factors for multicollinearity and a test for heteroscedasticity. With the exception of one outlier for the sample, which was removed prior to the MHMR analyses, no violations were found. With less than five percent data missing Little's (1988) test was done to see if data were missing completely at random. There was non-systematic pattern of missing

values Sample (135) = 163.971, p = 0.167. Recent simulation research studies suggested adopting to stochastic regression imputation methods generates coefficients comparable to multiple imputation even when there is less than five percent of data which are missing MCAR (Cheema, 2014; Eekhout et al., 2014). With a lack of consensus on imputation in interactions (Ender, Baraldi, & Cham, 2014), the use of stochastic regression addressed missing values.

The psychometric properties of the study measures were assessed for validity and reliability using SPSS 24. As shown in Table 1, reliabilities of each of the continuous measures were established at the desired alpha of 0.70 and above (Tabachnick, Fidell, & Ullman, 2007). Table 2 shows the steps used by Aiken and West (1981) to conduct a Moderated Hierarchical Multiple Regression (MHMR) in SPSS 25. Steps recommended by Jaccard, Wan, and Turrisi (1990) were followed in analyzing the linear interactions and moderation effects on the outcome variable. Figure 1 shows the interactive plot of how job control moderates work demands effect on job satisfaction (Dawson, 2014).

Table 1

Means, Standard Deviations, and Intercorrelations

Variables	M	SD	1	2	3	4	5	6
Age	40.60	14.03						
Gender	1.31	0.63	$0.192^{*}$					
Tenure	4.10	3.54	$0.194^{*}$	-0.031				
Emotional demands	12.33	4.64	-0.076	0.035	-0.053			
Work demands	14.85	5.00	0.097	0.166	0.047	$0.576^{*}$		
Job control	19.74	5.43	0.168	$0.201^{*}$	0.021	-0.208*	-0.125	
Job satisfaction	31.60	8.38	$0.230^{**}$	0.088	0.059	-0.397**	-0.360**	0.357**

*Notes.* Age and tenure were reported in years. Gender = Male coded 1 and Female coded 2. \* Correlation is significant at the 0.05 level (2-tailed). \*\* Correlation is significant at the 0.01 level (2-tailed). Reliabilities for each individual measure are reported diagonally. All non-covariate measures use a six-point Likert-type scale measure. N = 135, \*  $p \le 0.05$ , \*\*  $p \le 0.01$ .

Table 2
Results of Hierarchical Regression for Work Demands and Job Control

	Job satisfaction					
	Step 1	Step 2	Step 3			
Age	0.193*	0.172*	0.159			
Gender	0.076	0.062	0.041			
Tenure	0.001	0.016	0.015			
Emotional demands	-0.377*	-0.172	-1.65			
Work demands		-0.238*	-0.221*			
Job control		$0.266^{*}$	0.348*			
Work demands x job control			$0.176^*$			
$R^2$	0.19	0.30	0.32			
Adjusted $R^2$	0.17	0.26	0.28			
$\Delta F$	7.44*	8.57*	8.19*			

*Notes.* Standardized coefficients reported. \*  $p \le 0.05$ . \*\*  $p \le 0.01$ .

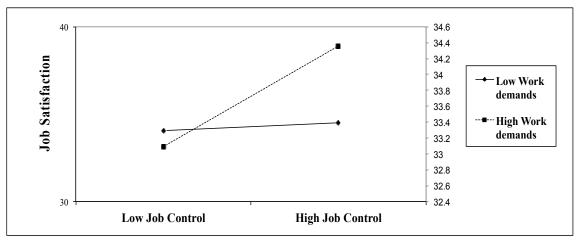


Figure 1. A two-way work demands—job control interaction on job satisfaction.

#### Results

The preset study examines the three hypotheses examined using the Moderated Hierarchical Multiple Regression (MHMR) in SPSS 25.0. Steps recommended by Jaccard et al. (1990) were followed in analyzing the linear interactions. Support was observed for Hypothesis 1 and Hypothesis 3, which were in the form of significantly squared work demand by job control interaction terms in the model. Two out of three study hypotheses were supported. As expected, under high workload conditions, job control has a non-linear association with job satisfaction (b-weight 1.4, p < 0.05). Job control positively influenced job satisfaction levels of employees (b-weight 3.1, p < 0.05). However, no support was found for workload demands main effect on employees' job satisfaction. The satisfaction level of non-profit employees with low workloads demands was also found to have experienced a positive influence of job control. In sum, study data indicate that increasing job control decreased job satisfaction when work demands are experienced as low, and increased job satisfaction when work demands are perceived as high or challenging.

#### **Discussion and Implications**

In an effort to better understand full-time employees in non-profit organizations, we examined how job characteristics and resources of job control and work demands predict the job satisfaction. Contrary to our expectation was not a significant but negative effects of work demand on job satisfaction, in other words as the work demands increased the less satisfied the employees. Consistent with previous findings on of non-profit and public employees' job autonomy, when work demand is high, a higher level of autonomy improves job satisfaction of employees (Lee, 2016; Knapp, Smith, & Sprinkle, 2017). Moreover, we found that job control was a consistent and strong predictor of job satisfaction. These results suggest that employees with a higher workload in non-profit or human services settings care more about the job autonomy they received in their jobs. These highlight numerous points for discussion and implications.

In regard to Hypotheses 1 and 2, it predicted the main effect of job control and work demand on job satisfaction. The findings showed how control over one's job significantly increased job satisfaction. And Hypothesis 2 of work demands effect on job satisfaction was not observed. Therefore, job control offered among non-profit employees increases job satisfaction. These findings have several implications for the workforce in

non-profit management. The two non-linear demands-control main effects and job satisfaction are both low and high control jobs are contrary to the existing literature. This sense that heightened levels of control under high work demand results in increased level of job satisfaction.

The study answered our research question with a sample of non-profit employees. These results have two central takeaways for non-profit human resource management. Firstly, non-profit employees experience negative levels of job satisfaction, even when they have reasonable work demands. Secondly, job control has a positive influence on job satisfaction with higher levels of work demands and negative effect when control low. This study reinforces the arguments that in highly emotionally challenging and demanding environments of human services, reducing workloads would not be enough as measure to increase job satisfaction, and only job control is an inevitable predictor, implying that providing autonomy to employees will increase job satisfaction. This relationship of work demands depends on how and when employees get their work done as prioritized within their organizations. Also, this study adds to the literature by showing how job control buffers the negative effects of high work demands on job satisfaction. These findings are specific to these particular settings. We reasoned that autonomy could be perceived as a buffer against the work demands by employees independently exercising their cognitive thinking and processing to anxiety inducing situations. Navigating through such perplexing situations would improve employees' work-related learning, skills, and strategies to solve problem during work stress inducing situations.

When employees are in low control jobs as opposed to human services where workers occupy high control jobs which could weaken their stress and strain perceptions, even when workloads and time pressure become harder by engaging in work-related strategies of respite activities, this idea of at-work respite activities as work related strategies allows to protect, replace, or conserve resources and this seems effective in consuming energetic resources, even when employees experience heightened exhaustion (Van Yperen & Hagedoorn, 2003). Similar self-regulatory strategies for employees, like break activities, have been found effective to sustain and improve occupational well-being outcomes (Zacher, Brailsford, & Parker, 2014). Therefore, instituting short-term break activities would most likely decrease fatigue for human service employee sand increase long-term occupational effects.

Although not hypothesized, job-related stressors strongly influenced job satisfaction and work-family balance whereas time management did not. Findings for this study in line with the previous research state that work-related demands are stressful at different levels (Fila, Purl, & Griffeth, 2017). Work demand and job control relationship with job satisfaction must be moderated or mediated by the gender, work-family conflict, and stress induced factors at work (Hwanga & Ramadoss, 2017). These in turn would decrease in job satisfaction and increase turnover.

#### **Methodological Considerations of Limitations and Future Research**

Several limitations are pertaining to the present study discussed. First, regarding the data, this sample of non-profit employees was collected from a single-source and at one point in time. Cross-sectional and mono-methods research design prohibit one's ability to make robust conclusions and draw inferences regarding causality between the variables of interest. One strategy in research methods is to address this concern by designing research studies which are longitudinal and time-series research designs. The second limitation is the

homogeneous data of gender and ethnicity which prevents generalizations of the study's findings to much larger population of employees.

A third limitation of this study is the exclusion of work-family conflict variables. Recent metanalytic study by Miraglia and Johns (2016) has argued that these stressors directly and positively influence the stressors and negatively relate to health and well-being outcomes (Eddy, Heckenberg, Wertheim, Kent, & Wright, 2016; Theorell et al., 2016). This is what may explain why women experience high work-family conflict and less satisfied with their jobs (Fellows, Chiu, Hill, & Hawkins, 2016). For these reasons, future research should look not only at the sources of work and family conflict which may be possible moderators or mediators to job satisfaction.

The use of self-report measures is the fourth limitations. Self-report measures can inflate the observed variance within the overestimated empirical findings (P. M. Podsakoff, MacKenzie, Lee, & N. P. Podsakoff, 2003). There some steps suggested addressing to minimize and conduct some tests to check for biasing effects; these include firstly, reversing coding the items on the measurement scale. Secondly, the Harmon's one factor test used to explain one general factor which explains the majority of variance in three scales of interest. And unrotated exploratory factor analysis using maximum likelihood estimations reveals how each set of the theoretically relevant constructs account less than 50% variance in a one single factor. Then, common method variance is bound to weaken the measurement reliability and non-linear and interaction coefficients. Mean centering was done to make sure that the moderation was not deflated rather than inflated. There is no refuting that the presence of common methods variance and procedures were offer against the strong biasing effects.

### **Conclusion and Implications**

Decades of research has examined the job satisfaction using the job demands and control model yielding contradictory and consistent findings. The two new innovative ways in this study clarify the hypothesized relationships. Firstly, integrate the COR theory to explain the non-linear findings of job demand and control in job satisfaction. Next, this COR theoretical synthesis gains empirical applicability for being applied to unique jobs characteristics and environmental factors contributing to strain and deterring job satisfaction. This study contributes to being the first of a kind in the contribution to the non-profit literature specific to human service agencies, and appeals for predictive validity of Theorell et al.'s (1990) JDC model on linear and strain buffer hypotheses. Therefore, applying the COR theory will bring both individual and environmental factors both to understate employees' perceptions at their jobs.

In practice settings, workforce management practices in non-profits to recruit, train, and retain their employees must consider these theory and data driven findings. First, the work demands in non-profits which are overly stressful and taxing, then jobs that widen decision making over their work or have autonomy in judgments over the work methods, schedule flexibility, and break-time to rest and recover, can buffer against the negative effects of highly demanding work which induces strain (Techera, Hallowell, Stambaugh, & Littlejohn, 2016). However complete control could be perceived as uncertain and stressful if employees do confer with the management practices and the use of their autonomy unfairly which increases strain and reduces job satisfaction.

Data from this study are first to uncover the interactive pattern between workloads and job control among non-profit employees. Study findings demonstrate the moderating role of job control on employees' levels of

satisfaction. Hence, these non-linear research findings show how high job control has a positive influence on the job satisfaction levels of non-profit employees, even under conditions of increasing workloads and challenging emotional demands. This non-linear relationship confirms the theoretical implications. From a research perspective, the non-profit scholars could potentially: (1) incorporate job control in their conceptual, models, and framework; (2) and then eventually examine the employee well-being outcomes. Practical implications highlight two specific things. First, non-profit agencies could consider job control to buffer high workload demands detrimental impact on employees' job satisfaction. Second, workplace resources and strategies could consider giving employees more control over their workload even when work is demanding and emotionally challenging.

#### References

- Aboelela, S. W., Larson, E., Bakken, S., Carrasquillo, O., Formicola, A., Glied, S. A., & Gebbie, K. M. (2007). Defining interdisciplinary research: Conclusions from a critical review of the literature. *Health Services Research*, 42(1), 329-346.
- Abramovitz, M., & Zelnick, J. (2015). Privatization in the human services: Implications for direct practice. *Clinical Social Work Journal*, 43(3), 283-293.
- Aiken, L. S., & West, S. G. (1991). Multiple regression. Beverly Hills, CA: Sage Publishing.
- Arbuckle, J. L. (2017). IBM® SPSS® Amos™ 25 user's guide. Chicago, IL: IBM.
- Astvik, W., & Melin, M. (2013). Coping with the imbalance between job demands and resources: A study of different coping patterns and implications for health and quality in human service work. *Journal of Social Work*, 13(4), 337-360.
- Bakker, A. B., Demerouti, E., & Verbeke, W. (2004). Using the job demands-resources model to predict burnout and performance. Human Resource Management: Published in Cooperation With the School of Business Administration, the University of Michigan and in alliance With the Society of Human Resources Management, 43(1), 83-104.
- Bakker, A. B., Demerouti, E., Taris, T. W., Schaufeli, W. B., & Schreurs, P. J. (2003). A multigroup analysis of the job demands-resources model in four home care organizations. *International Journal of Stress Management*, 10(1), 16-38.
- Benton, A. D., & Austin, M. J. (2010). Managing non-profit mergers: The challenges facing human service organizations. *Administration in Social Work, 34*(5), 458-479.
- Berset, M., Semmer, N. K., Elfering, A., Amstad, F. T., & Jacobshagen, N. (2009). Work characteristics as predictors of physiological recovery on weekends. *Scandinavian Journal of Work, Environment & Health*, 35(3), 188-192.
- Borzaga, C., & Tortia, E. (2006). Worker motivations, job satisfaction, and loyalty in public and non-profit social services. *Non-profit and Voluntary Sector Quarterly*, 35(2), 225-248.
- Bowers, D. G., & Seashore, S. E. (1966). Predicting organizational effectiveness with a four-factor theory of leadership. *Administrative Science Quarterly*, 11(2), 238-263.
- Brand, S. L., Coon, J. T., Fleming, L. E., Carroll, L., Bethel, A., & Wyatt, K. (2017). Whole-system approaches to improving the health and well-being of healthcare workers: A systematic review. *PloS One*, *12*(12), e0188418.
- Calitz, T., Roux, A., & Strydom, H. (2014). Factors that affect social workers' job satisfaction, stress and burnout. *Social Work,* 50(2), 153-169.
- Cheema, J. (2014). Some general guidelines for choosing missing data handling methods in educational research. *Journal of Modern Applied Statistical Methods*, 13(2), 53-75. doi:10.22237/jmasm/1414814520
- Chung-Yan, G. (2010). The non-linear effects of job complexity and autonomy on job satisfaction, turnover, and psychological well-being. *Journal of Occupational Health Psychology*, 15(3), 237-251. doi:10.1037/a0019823
- Cooper, C. L., Cooper, C. P., Dewe, P. J., & O'Driscoll, M. P. (2001). *Organizational stress: A review and critique of theory, research, and applications*. Beverly Hills, CA: Sage.
- Dawson, J. F. (2014). Moderation in management research: What, why, when, and how. *Journal of Business and Psychology*, 29(1), 1-19.
- Dillman, D. A. (2011). Mail and Internet surveys: The tailored design method—2007 Update with new Internet, visual, and mixed-mode guide. Hoboken: John Wiley & Sons.

- Eatough, E. M., & Spector, P. E. (2014). The role of workplace control in positive health and well-being. In P. Y. Chen and C. L. Cooper (Eds.), *Well-being: A complete reference guide—Work and well-being* (pp. 91-109). Wiley Blackwell. Retrieved from https://doi.org/10.1002/9781118539415.wbwell021
- Eddy, P., Heckenberg, R., Wertheim, E. H., Kent, S., & Wright, B. J. (2016). A systematic review and meta-analysis of the effort-reward imbalance model of workplace stress with indicators of immune function. *Journal of Psychosomatic Research*, 91, 1-8.
- Eekhout, I., de Vet, H., Twisk, J., Brand, J., de Boer, M., & Heymans, M. (2014). Missing data in a multi-item instrument were best handled by multiple imputation at the item score level. *Journal of Clinical Epidemiology*, 67(3), 335-342. doi:10.1016/j.jclinepi.2013.09.009
- Enders, C. K., Baraldi, A. N., & Cham, H. (2014). Estimating interaction effects with incomplete predictor variables. *Psychological Methods*, 19(1), 39-55.
- Eysenck, M. W., Derakshan, N., Santos, R., & Calvo, M. G. (2007). Anxiety and cognitive performance: Attentional control theory. *Emotion*, 7(2), 336-353.
- Fellows, K. J., Chiu, H. Y., Hill, E. J., & Hawkins, A. J. (2016). Work-family conflict and couple relationship quality: A meta-analytic study. *Journal of Family and Economic Issues*, 37(4), 509-518.
- Fila, M. J., Purl, J., & Griffeth, R. W. (2017). Job demands, control and support: Meta-analyzing moderator effects of gender, nationality, and occupation. *Human Resource Management Review*, 27(1), 39-60.
- Gerich, J., & Weber, C. (2019). The ambivalent appraisal of job demands and the moderating role of job control and social support for burnout and job satisfaction. *Social Indicators Research*, 148, 251-280.
- Griffiths, A., Royse, D., Culver, K., Piescher, K., & Zhang, C. (2017). Who stays, who goes, who knows? A state-wide survey of child welfare workers. *Children and Youth Services Review*, 77, 110-117. doi:10.1016/j.childyouth.2017.04.012
- Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology*, 43(6), 495-513.
- Halbesleben, J. R., Neveu, J. P., Paustian-Underdahl, S. C., & Westman, M. (2014). Getting to the "COR" understanding the role of resources in conservation of resources theory. *Journal of Management*, 40(5), 1334-1364.
- Häusser, J. A., Mojzisch, A., Niesel, M., & Schulz-Hardt, S. (2010). Ten years on: A review of recent research on the job demand-control (-support) model and psychological well-being. *Work & Stress*, 24(1), 1-35.
- Hobfoll, S. (2002). Social and psychological resources and adaptation. Review of General Psychology, 6(4), 307-324.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513-524.
- Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology*, *50*(3), 337-421.
- Hobfoll, S. E. (2002). Social and psychological resources and adaptation. Review of General Psychology, 6(4), 307-324.
- Hwang, W., & Ramadoss, K. (2017). The job demands-control-support model and job satisfaction across gender: The mediating role of work-family conflict. *Journal of Family Issues*, 38(1), 52-72.
- Jaccard, J., Wan, C. K., & Turrisi, R. (1990). The detection and interpretation of interaction effects between continuous variables in multiple regression. *Multivariate Behavioral Research*, 25(4), 467-478.
- Jackson, P. R., Wall, T. D., Martin, R., & Davids, K. (1993). New measures of job control, cognitive demand, and production responsibility. *Journal of Applied Psychology*, 78(5), 753-762.
- Johnson, S., Cooper, C., Cartwright, S., Donald, I., Taylor, P., & Millet, C. (2005). The experience of work-related stress across occupations. *Journal of Managerial Psychology*, 20(2), 178-187.
- Judge, T. A., Locke, E. A., Durham, C. C., & Kluger, A. N. (1998). Dispositional effects on job and life satisfaction: The role of core evaluations. *Journal of Applied Psychology*, 83(1), 17-34.
- Kahn, R. L., & Byosiere, P. (1992). Stress in organizations. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (pp. 571-650). Palo Alto, CA: Consulting Psychologists Press.
- Karasek Jr, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. Administrative Science Quarterly, 24, 285-308.
- Karasek, R., Brisson, C., Kawakami, N., Houtman, I., Bongers, P., & Amick, B. (1998). The Job Content Questionnaire (JCQ): An instrument for internationally comparative assessments of psychosocial job characteristics. *Journal of Occupational Health Psychology*, 3(4), 322-355.
- Katz, D., & Kahn, R. L. (1966). The social psychology of organizations. New York: John Wiley.

- Kim, H., & Kao, D. (2014). A meta-analysis of turnover intention predictors among US child welfare workers. *Children and Youth Services Review*, 47, 214-223.
- Kim, H., & Stoner, M. (2008). Burnout and turnover intention among social workers: Effects of role stress, job autonomy and social support. *Administration in Social Work, 32*(3), 5-25.
- Knapp, J. R., Smith, B. R., & Sprinkle, T. A. (2017). Is it the job or the support? Examining structural and relational predictors of job satisfaction and turnover intention for non-profit employees. *Non-profit and Voluntary Sector Quarterly*, 46(3), 652-671.
- Koh, C. W., Shen, W., & Lee, T. (2016). Black-white mean differences in job satisfaction: A meta-analysis. *Journal of Vocational Behavior*, 94, 131-143.
- Lanfranchi, J., & Narcy, M. (2015). Female overrepresentation in public and non-profit sector jobs: Evidence from a French national survey. *Non-profit and Voluntary Sector Quarterly*, 44(1), 47-74.
- Lee, Y. J. (2016). Comparison of job satisfaction between non-profit and public employees. *Non-profit and Voluntary Sector Quarterly*, 45(2), 295-313.
- Light, P. (2002). The content of their character: The state of the non-profit workforce. Non-profit Quarterly, 9(3), 6-19.
- Little, R. J. (1988). A test of missing completely at random for multivariate data with missing values. *Journal of the American Statistical Association*, 83(404), 1198-1202.
- Livne, Y., & Goussinsky, R. (2018). Workplace bullying and burnout among healthcare employees: The moderating effect of control-related resources. *Nursing & Health Sciences*, 20(1), 89-98.
- Lizano, E. L. (2015). Examining the impact of job burnout on the health and well-being of human service workers: A systematic review and synthesis. *Human Service Organizations: Management, Leadership & Governance, 39*(3), 167-181.
- Lizano, E. L., & Barak, M. M. (2015). Job burnout and affective well-being: A longitudinal study of burnout and job satisfaction among public child welfare workers. *Children and Youth Services Review*, 55, 18-28.
- Lizano, E. L., Hsiao, H. Y., Mor Barak, M. E., & Casper, L. M. (2014). Support in the workplace: Buffering the deleterious effects of work-family conflict on child welfare workers' well-being and job burnout. *Journal of Social Service Research*, 40(2), 178-188.
- Miraglia, M., & Johns, G. (2016). Going to work ill: A meta-analysis of the correlates of presenteeism and a dual-path model. *Journal of Occupational Health Psychology*, 21(3), 261-283.
- Mor Barak, M. E., Lizano, E. L., Kim, A., Duan, L., Rhee, M. K., Hsiao, H. Y., & Brimhall, K. C. (2016). The promise of diversity management for climate of inclusion: A state-of-the-art review and meta-analysis. *Human Service Organizations: Management, Leadership & Governance, 40*(4), 305-333.
- Newell, J. M. (2019). An ecological systems framework for professional resilience in social work practice. *Social Work*, 65(1), 65-73.
- 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.
- Preston, M. S. (2018). Does job control moderate work demands' non-linear association with job strain? A two-sample study using human service case managers. *Human Service Organizations: Management, Leadership & Governance, 42*(3), 300-317.
- Rabinowitz, S., & Stumpf, S. A. (1987). Facets of role conflict, role-specific performance, and organizational level within the academic career. *Journal of Vocational Behavior*, 30(1), 72-83.
- Schelbe, L., Radey, M., & Panisch, L. S. (2017). Satisfactions and stressors experienced by recently-hired frontline child welfare workers. *Children and Youth Services Review*, 78, 56-63.
- Smith, D. B., & Shields, J. (2013). Factors related to social service workers' job satisfaction: Revisiting Herzberg's motivation to work. *Administration in Social Work*, 37(2), 189-198.
- Sonnentag, S., & Zijlstra, F. R. (2006). Job characteristics and off-job activities as predictors of need for recovery, well-being, and fatigue. *Journal of Applied Psychology*, 91(2), 330-350.
- Spector, P. E., & Brannick, M. T. (2011). Methodological urban legends: The misuse of statistical control variables. *Organizational Research Methods*, 14(2), 287-305.
- Subhani, A. R., Malik, A. S., Kamel, N., Saad, N., & Nandagopal, D. (2015). Experimental evidence for the effects of the demand-control model on the cognitive arousal: An EEG based study. *The 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS)*, August 25-29, Milano, Italy.
- Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2007). Using multivariate statistics (Vol. 5). Boston, MA: Pearson.
- Techera, U., Hallowell, M., Stambaugh, N., & Littlejohn, R. (2016). Causes and consequences of occupational fatigue: Meta-analysis and systems model. *Journal of Occupational and Environmental Medicine*, 58(10), 961-973.

- Theorell, T., Jood, K., Järvholm, L. S., Vingård, E., Perk, J., Östergren, P. O., & Hall, C. (2016). A systematic review of studies in the contributions of the work environment to ischaemic heart disease development. *The European Journal of Public Health*, 26(3), 470-477.
- Theorell, T., Karasek, R. A., & Eneroth, P. (1990). Job strain variations in relation to plasma testosterone fluctuations in working men—A longitudinal study. *Journal of Internal Medicine*, 227(1), 31-36.
- Tims, M., Bakker, A. B., & Derks, D. (2013). The impact of job crafting on job demands, job resources, and well-being. *Journal of Occupational Health Psychology*, 18(2), 230-240.
- Travis, D. J., Lizano, E. L., & Mor Barak, M. E. (2016). I'm so stressed!: A longitudinal model of stress, burnout and engagement among social workers in child welfare settings. *The British Journal of Social Work, 46*(4), 1076-1095.
- Van den Broeck, A., Vansteenkiste, M., De Witte, H., & Lens, W. (2008). Explaining the relationships between job characteristics, burnout, and engagement: The role of basic psychological need satisfaction. *Work & Stress*, 22(3), 277-294.
- Van der Doef, M., & Maes, S. (1999). The job demand-control (-support) model and psychological well-being: A review of 20 years of empirical research. *Work & Stress*, 13(2), 87-114.
- Van Veldhoven, M., & Meijman, T. (1994). Het meten van psychosociale arbeidsbelasting (The measurement of psychosocial job demands). Amsterdam: NIA.
- Van Veldhoven, M., de Jonge, J., Broersen, S., Kompier, M., & Meijman, T. (2002). Specific relationships between psychosocial job conditions and job-related stress: A three-level analytic approach. *Work & Stress, 16*, 207-228.
- Van Yperen, N. W., & Hagedoorn, M. (2003). Do high job demands increase intrinsic motivation or fatigue or both? The role of job control and job social support. *Academy of Management Journal*, 46(3), 339-348.
- Vegchel, N. V., Jonge, J. D., Söderfeldt, M., Dormann, C., & Schaufeli, W. (2004). Quantitative versus emotional demands among Swedish human service employees: Moderating effects of job control and social support. *International Journal of Stress Management*, 11(1), 21-40.
- Visser, M., Mills, M., Heyse, L., Wittek, R., & Bollettino, V. (2016). Work-Life balance among humanitarian aid workers. Non-profit and Voluntary Sector Quarterly, 45(6), 1191-1213.
- Wall, T. D., Jackson, P. R., Mullarkey, S., & Parker, S. K. (1996). The demands-control model of job strain: A more specific test. *Journal of Occupational and Organizational Psychology*, 69(2), 153-166.
- Weiss, D. J., Dawis, R. V., England, G. W., & Lofquist, L. H. (1967). *Manual for the Minnesota satisfaction questionnaire: Minnesota studies in vocational rehabilitation.* Minneapolis: Industrial Relations Center, University of Minnesota.
- Weiss, H. M. (2002). Deconstructing job satisfaction: Separating evaluations, beliefs and affective experiences. *Human Resource Management Review*, 12(2), 173-194.
- Zacher, H., Brailsford, H., & Parker, S. (2014). Micro-breaks matter: A diary study on the effects of energy management strategies on occupational well-being. *Journal of Vocational Behavior*, 85(3), 287-297. doi:10.1016/j.jvb.2014.08.005
- Zeytinoglu, I. U., & Denton, M. (2006). Satisfied workers, retained workers: Effects of work and work environment on homecare workers' job satisfaction, stress, physical health, and retention. Ottawa: Research Institute for Quantitative Studies in Economics and Population, McMaster University.