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A structural model of workload, job attitudes, stress, and turnover intentions

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### A structural model of workload, job attitudes, stress, and turnover intentions

Employee turnover is a topic of importance to any organization and has been the subject of a large amount of research in organizational research. Keller (1984) describes a number of reasons for employee turnover, including role performance and absenteeism. Additionally, turnover has been supported as an important factor in influencing an organization's bottom line (Keller, 1984). Hypothesizing stress as a mediating variable, this research evaluates a path model of turnover in which workload, perceived organizational support, and engagement are considered to be antecedent variables.

Stress has become a major staple of behavioral research in the workplace (Gellis & Kim, 2004). Workplace stress has generally been studied in three ways - as a stimulus, as a response, or through a stimulus-response interaction (Jex, Beehr, & Roberts, 1992). As a stimulus, stress relates to the work environment and its effect on an employee. Using the stimulus approach, the work environment is considered to be the actual object causing stress. A second approach to defining stress in organizational research is the response approach. This approach evaluates stress as an employee's affective reaction to elements of the workplace and work environment. The final approach to assessing stress within the organization is through the stimulus-response approach. The stimulus-response approach assumes that stress results from the dynamic interaction between the work environment and workplace affects. Jex, Beehr, and Roberts (1992) provide an example of an employee who quits due to an increased workload. In this example, the stimulus would be the increased workload and the response, employee's turnover. The stimulus-response would be defined as the interaction between the increased workload and turnover. For the purpose of this study the stimulus-response approach will be used in the current research study.

Workload refers to the amount of work that is allocated to an employee to do. A number of researchers have supported a positive relationship between workload and stress (Jex, et al., 1992). MacDonald (2003) studies the role of workload on stress and fatigue and found they were significantly related. Smith & Bourke (1992) also identified a significant and positive relationship between workload and perceived work-related stress. Further, Glaser, Tatum, Nebeker, Sorenson, and Aiello (1999) found that stress served an intermediate role between workload and important organizational outcomes such as performance. Considering the research showing significant relationships between workload and stress and stress and turnover, this research assumes that stress will play a mediation role between workload and turnover intentions. However, other employee perceptions are also likely to be related to stress levels including perceived organizational support (POS) and engagement.

Perceived organizational support is a concept developed by Eisenberger and his colleagues (Eisenberger, Huntington, Hutchison, & Sowa, 1986). POS is grounded in exchange theory that assumes that both the organization and employees have specific, informal workplace expectations (Rhoades & Eisenberger, 2002). Coyle-Shapiro and Conway (2005), Eisenberger, Cummings, Armeli, & Lynch (1997), and Rhoades and Eisenberger (1992) specify voluntary enticements such as organizational rewards and benefits as well as the legal, moral, and financial obligations of organizational policies, norms, and culture as important determinants of the organization as supportive. When these expectations are honored by the organization, it is more likely that the members of the organization will have positive attitudes and cognitions regarding the organization as supportive and respond with higher levels of emotional-relational and/or tangible resources (Coyle-Shapiro & Conway, 2005). POS is conceptually similar to

organizational commitment (Eisenberger, Fasolo, & Davis-LaMastro, 1990). Considering POS refers to individual perceptions regarding an organization's value and care for an individual, it follows that positive perceptions regarding an organization as supportive are likely to reduce absenteeism and stress levels (Eisenberger et al., 1986; Rhoades & Eisenberger, 2002). Thus the current research assumes that stress will partially mediate the relationship between POS and turnover intentions.

Engagement also can be seen as related to stress levels. Engagement has been defined as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli & Bakker, 2004, p. 295). The research done on the relationship between engagement and stress is limited, but it has been found that engagement may limit the effect of stress in certain domains (Britt, Castro, & Adler, 2005). Saks (2006) explored the relationship between engagement and a number of important organizational outcomes. Again evoking a social exchange perspective, Saks concluded that engagement was positively related to factors such as commitment, POS, and negatively related to turnover intentions. Krueger and Killham (2005) concluded in a national survey assessing the impact of positive feelings at work that happy and engaged workers were more likely to handle new challenges and stress more effectively. Thus, the less an employee is engaged the more likely the employee is to become more affected by stress levels, but also to voluntarily leave an organization (Saks, 2006; Schaufeli & Bakker, 2004). Thus the current research assumes that stress will partially mediate the relationship between engagement and turnover intentions.

### *Hypotheses*

The following hypotheses have been developed for the current research:

Hypothesis 1: There will be significant positive zero-order correlations between workload and stress.

Hypothesis 2: Engagement will have negative zero-order relationships with stress and turnover intentions

Hypothesis 3: Perceived organizational support will have a significant and negative zero-order relationship to stress

Hypothesis 4: Stress will have a significant and positive zero-order relationship to turnover intentions

Hypothesis 5: Stress will partially mediate the relationship between engagement and turnover intentions.

Hypotheses 6: A model with workload having a direct effect on stress, perceived organizational support having a direct effect on stress, engagement having direct effects on both stress and turnover intentions, and stress having a direct effect on turnover intentions (see Figure 1) will have a satisfactory fit.

### **Method**

A casual dining restaurant was contacted regarding possible research opportunities. Surveys were sent directly to the store managers of fifty stores throughout the Midwest. Using payroll estimates based on recent estimates from the central office, a total of 4,088 surveys were sent to fifty-six quick service restaurants throughout the U.S.A. Of the fifty-six stores that received surveys, thirty restaurants, 54%, returned surveys. The restaurant managers were given complete discretion regarding their level of participation. The thirty responding restaurants were sent 1,704 surveys. The range of returned surveys varied between seven and sixty-one. The total number of surveys received from these restaurants was 856, a response rate of 50%.

### *Participants*

The participants were predominantly female (62%), and most of the participants were Caucasian (87%). The average age of participants was 24 for all stores. The average tenure in months was 25.92 ( $SD = 31.49$ ) and the average number of hours worked per week was 27.51 ( $SD = 9.44$ ). About half (51.4%) of the participants identified themselves as students. The type of work performed by the participants varied. Slightly less than half were servers (45.6%), 7.2% were front of the house employees, 12.9% were hosts/hostesses, 2% were wait aides, 3.3% were bartenders, and 29% classified themselves as other.

### *Materials*

A questionnaire was developed with standard demographic items such as age, race, and gender. Other demographic items were related to the type of work performed, hours worked, and student status. Published scales were also included in the survey. Those scales were Perceived Organizational Support (Eisenberger, Cummings, Armeli, & Lynch, 1997), Workload (Spector & Jex, 1998), UWES Job Engagement scale (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002), and Stress in General (Stanton, Blazer, Smith, Parra, & Ironson, 2001). Turnover intentions were measured using six items developed for the restaurants from a previous survey. Sample items included; "I often think about quitting my job;" "I could find another job during the next two months;" and "I expect to leave for another company within the next year."

### *Procedures*

Questionnaires were mailed, with cover letters providing distribution instructions and reasons for survey data collection, to individual store and regional managers. The instructions asked managers to distribute the surveys and collect and return completed surveys in the provided return envelopes. Employees completed the surveys at work. Employees were given individual envelopes to put the completed surveys in so their responses to the items would be kept confidential from the supervisors. Managers were instructed to collect the surveys and mail them back to Kansas State University. Each return envelope was coded by store number.

### *Analyses*

The data were first examined using descriptive statistics (mean, standard deviation, minimum, maximum, skew, & kurtosis) and plots of the data. No significant missing data were found. The means, standard deviations, and correlations are presented in Table 1. Hierarchical regressions were used to examine whether perceived organizational support and engagement offered any unique prediction of turnover intentions beyond that of stress and workload (see table 2). Mediation analyses was conducted to examine if stress mediated the relationship between engagement and turnover intentions (see table 3) using the procedures provided by Baron and Kenny (1986). Structural equation modeling was used to examine the hypothesized model (see figure 1).

## **Results**

The means, standard deviations, intercorrelations, and reliabilities are presented in Table 1. The reliabilities of the scales were all above acceptable research reliability of 0.70. Workload had significant positive correlations with engagement, stress, and turnover, although, the correlations were weak, ranging from .14 to .16. The positive correlation of .14 between stress and workload supported hypothesis 1. Turnover intentions had significant negative relationships with perceived organizational support ( $r = -.50, p < .01$ ) and engagement ( $r = -.44, p < .01$ ) and engagement and stress had a significant negative relationship ( $r = -.14, p < .01$ ). The negative

correlations between engagement and stress and engagement and turnover intentions supported hypothesis 2. POS had a significant negative relationship with stress ( $r = -.23, p < .01$ ), supporting hypothesis 3. Stress also had a significant positive relationship with turnover intentions ( $r = .15, p < .01$ ) supporting hypothesis 4. A hierarchical regression resulted in significant prediction of turnover intentions (see Table 2). Perceived organizational support and engagement both added unique explained variance to the prediction of turnover intentions beyond that of stress and workload ( $R = .57, R^2 = .32, \Delta R^2 = .06, p < .01$ ; Stress:  $\beta = .01, p > .05$ ; Workload:  $\beta = .15, p < .01$ ; POS:  $\beta = -.34, p < .01$ ; Engagement:  $\beta = -.29, p < .01$ ). A mediation test resulted in stress partially mediating the relationship between engagement and turnover intentions (see table 3) supporting hypothesis 5. In the third step of the three-step process (Baron & Kenny, 1986), the beta weight of engagement was slightly reduced and the beta weight of stress was significant, after controlling for engagement ( $R = .44, R^2 = .20, \Delta R^2 = .01, p < .01$ ; engagement:  $\beta = -.42, p < .01$ ; stress:  $\beta = .09, p < .05$ ).

The hypothesized model was tested using structural equation modeling (see Table 4 and Figure 1). This model did not have a good fit and hypothesis 6 was not supported. In an exploratory fashion, various other models were also tested. None of these models were a good fit. Of all the models tested, including the hypothesized model, none of the fit indices were above .90 and none of the RMSEA results were below .10. Of the models tested, the best fitting model had the workload variable completely removed from the model, as it did not appear to be contributing much to the model (see Figure 2). The remaining variables were organized with direct lines from stress to perceived organizational support, perceived organizational support to engagement, and engagement to turnover intentions.

### Discussion

The current research hypothesized a model of turnover assuming indirect effects of workload and perceived organizational support on stress and a partially mediated effect of engagement on reducing turnover intentions. When evaluated in a hierarchical regression analysis, both perceived organizational support and engagement added incrementally to the prediction of reduced turnover intentions. Meyer and Allen (1997) and Mowday, Porter, and Steers (1982) highlighted the importance of individuals and teams committing to the vision, goals, and values of the organization in increasing morale, satisfaction, and productivity, and reducing turnover. The result of the current study highlights the importance of positive organizational perceptions as providing potential implications for reducing attitudes and perceptions in reducing. Further, organizations that focus on methods to cognitively enliven their employees by providing tasks that offer a proper challenge-skill balance, or energetic resources (Shirom, 2003) may indeed reduce intentions to turnover, as well as increasing commitment (Fornes & Rocco, 2005). Additionally, the research highlights the importance of reducing unnecessary organizational stressors in the workplace. Policies developed and supported by the organization as effective and safe ways to reduce the stress related to extraneous variables counterproductive to organizational effectiveness may provide a relatively inexpensive method to avoid the significant cause related to active employee disengagement, withdrawal, and turnover (Saks, 2006; Vance, 2006).

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Table 1

*Descriptive statistics, correlation matrix, reliabilities (in parentheses) (N = 807)*

	1	2	3	4	5
1. Perceived Org. Support	(.89)				
2. Workload	-.13**	(.73)			
3. Engagement	.49**	.14**	(.91)		
4. Stress	-.23**	.14**	-.14**	(.88)	
5. Turnover intentions	-.50**	.16**	-.44**	.15**	(.76)
Mean	28.59	21.15	78.78	18.79	17.82
Standard deviation	6.24	4.33	17.07	12.22	4.78

\*\* Correlation is significant at the 0.01 level (2-tailed).

Table 2

*Hierarchical regression (Criterion = Turnover intentions)*

Variables Entered	Beta	R <sup>2</sup>	R <sup>2</sup> Change
Stress	.15**	.02	.02**
Stress Workload Perceived Org. Support	.02 .09** -.49**	.26	.24**
Stress Workload Perceived Org. Support Engagement	.01 .15** -.34** -.29**	.32	.06**

Table 3

*Mediation test (regression)*

Variables Entered	Turnover intentions (DV)		
	Beta	R <sup>2</sup>	R <sup>2</sup> Change
Step 1			
Engagement	-.43**	.19	.19**
Step 2			
Engagement	-.14**	.02	.02**
Step 3			
Engagement	-.44**	.19	.19**
Engagement	-.42**		
Stress	.09**	.20	.01**

Table 4

*Overall Fit Indices*

Model	$\chi^2$	<i>df</i>	<i>NFI</i>	<i>AGFI</i>	<i>CFI</i>	<i>RMSEA</i>
Null	653.49	10				
Model 1	177.96	3	.73	.59	.73	.27
Model 2	151.60	5	.77	.79	.77	.19
Model 3	107.78	3	.79	.79	.79	.21
Model 4	100.24	1	.81	.42	.81	.35

Note: *df*=degrees of freedom; *NFI*=Normed Fit Index; *AGFI*=Adjusted Goodness of Fit; *RMSEA*=Root Mean Square Error of Approximation Residual; *CFI*=Comparative Fit Index; *IFI*=Incremental Fit Index. The *Chi-Square* and *df* reported for the Null model are from the Model 1 output.

Model 1 – see figure 1 (hypothesized model)

Model 2 – Model 1 with the following modifications: direct line from engagement to stress removed, direct line from stress to perceived organizational support, direct line from workload to stress removed, & direct line from stress to turnover intentions removed

Model 3 – Workload was removed with direct lines from stress to POS, POS to engagement, and engagement to turnover intentions

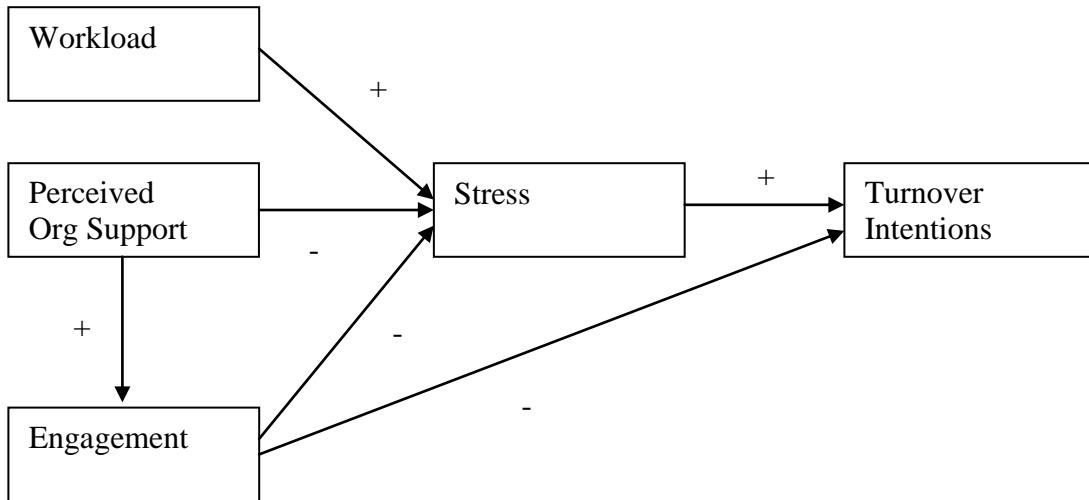
Model 4 – Model 3 with direct lines from POS to stress and engagement, engagement to stress and turnover intentions, and stress to turnover intentions

**Figure Caption**

*Figure 1. Hypothesized model of workload, job attitudes, stress, and turnover intentions*

*Figure 2. Model 3*

Figure 1. Hypothesized model of workload, job attitudes, stress, and turnover intentions



*Figure 2. Model 3*

