

Why They Intend to Leave: The Role of Burnout Between the Faculty Work Environment and Intent to Leave Academia

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Abstract

Though faculty are crucial to university success, faculty work motivation research often lacks a theoretical basis and discounts potential affective influences like burnout. Such limitations reduce the ability to understand faculty work motivation and, thus, to facilitate its development. To overcome these, the Affective Events Theory was applied to the domain of faculty work motivation. The resultant model was tested using faculty participants from 24 doctoral universities. Participants completed a survey assessing work-related characteristics, affect (burnout), and cognitions. Results revealed that faculty at doctoral universities (i.e., High and Very High Research Activity Universities) experienced less burnout when they received support from their institution, had autonomy in structuring their daily tasks, viewed their job as important, completed their tasks from beginning to end, experienced less skill and task variety, and were in good health. Those who experienced burnout reported diminished job satisfaction, reduced commitment, and less intention to stay in academia. The implications for theoretical research, institutional policy, and practice are discussed.

Keywords: Faculty Work Motivation, Burnout, Job Satisfaction, University Faculty, Intent To Leave Academia

1. Introduction

University faculty work is varied and complicated. Faculty are vital to the prosperity of a university as they engage in academic research across multiple disciplines and actively contribute to the development of a healthy campus climate [1]. However, many faculty describe their workplace as highly commercialized, emotionally depleting, and mentally draining with approximately 20% reporting high burnout levels [2-5]. Additionally, 40% of faculty in a national survey reported feeling unable to balance the performance expectations of teaching, research, and service, which may reflect the changing nature of universities [6-8]. These descriptions may be warranted as evidence points to the negative effects of corporate managerial techniques utilized by universities [9-11]. Faculty experiencing feelings of inadequacy, burnout, and/or trying to navigate fluctuating expectations may be more inclined to leave. Faculty turnover cost universities time and resources, and remediation requires additional monetary investment [12]. Despite these issues, the sources to faculty work motivation and intention to stay remain largely unexplored.

1.1. Faculty Work Motivation

Over the past three decades, the literature on faculty work has been informative. It has focused on important topics like understanding how economic and social changes influence faculty work, or how environmental changes impact faculty demographics [13-15]. Additional studies have examined faculty turnover and motivation [16-19]. Though informative,

two components appear to be limited or unclear.

First, research on faculty work motivation is limited. Relatively few theories have been proposed or used to explain faculty work motivation. For example, some faculty motivation research is based solely on empirically guided turnover models [20-23]. Other research is based on theories that may not capture the complex nature of faculty work motivation [16, 24, 25]. Of the theories that have been applied to this domain, most consider only environmental and cognitive aspects, and in some cases separate from one another [20-22, 26].

Second, the role of affect in faculty work motivation is unclear. Prior research has shown that, over time, (negative) affect may lead to a wide range of physical and mental health related problems and major public health concerns [27-30]. Such outcomes have important implication for faculty and universities alike. Given the enormous cost of (negative) affect, research in this area is certainly overdue. In recent years, calls have been made to investigate the role of (negative) affect as a determining factor of faculty work motivation [2-4]. These calls have resulted in research focused on examining various job demands and resources associated with faculty burnout, a form of negative affect [31]. Studies that have included burnout as a component have been descriptive rather than theoretically based [32-34]. Even so, faculty work motivation research has not simultaneously examined the relationship between affect,

the work environment, and cognition.

In the general field of work motivation, Affective Events Theory (AET) is the only perspective in understanding work motivation that incorporates affect in addition to cognition and the work environment [35]. According to AET, affect (i.e., emotions, moods, etc.) interacts with the work environment and cognition (i.e., values, intentions, etc.) to influence work motivation outcomes. Specifically, when the work environment triggers affective experiences, an employee engages in value judgements and experiences work attitudes. Further, work attitudes (job satisfaction) mediate how affective experiences (burnout) and value judgements (commitment) impact more reasoned, long-term judgment based behaviors (intent to leave). In addition, the work environment influences work attitudes directly and indirectly through affective experiences. However, despite its potential utility, AET has not been applied in faculty work motivation research.

The purpose of the current study is to understand the key contributors to faculty work motivation by adapting a more inclusive form of AET [35]. The aim is to demonstrate that the work environment triggers affective experiences, thereby influencing faculty commitment, job satisfaction, and intent to leave. In this respect, past faculty work motivation research is extended by unraveling the intricate relationship between the work environment, cognition, and affect.

1.2. Affect and Burnout

Burnout can be defined as a depletion of emotional resources at work [36-39]. Instead of episodic events, the burnout of interest here develops gradually in response to a prolonged accumulation of work stressors over time, and, as such, emotional exhaustion is considered a primary component [36-38]. Experiencing burnout may lead faculty to consider a permanent departure from academia, especially if it is intense and long lasting [4]. This departure has many potentially negative repercussions for the individual, university, and field as a whole. Thus, it is important to understand the relationship between burnout, the overall work experience, and the intention to leave.

1.3. The Impact of the Environment and Events on Negative Affect and Cognition

One of the challenges to understanding faculty work is the increasingly complex work environment. Decades of research demonstrate that certain aspects or attributes of the work environment have important organizational and individual implications [40, 41]. Specifically, the following work aspects are key to the work environment: 1) *task identity*, the degree to which a job requires the completion of an identifiable and whole piece of work; 2) *task significance*, the degree to which the job has substantial impact; 3) *task variety*, the degree to which a job requires a variety of different activities; 4) *skill variety*, the degree to which a job requires a variety of skills and talents; 5) *autonomy*, the degree to which the job provides substantial freedom, independence, and discretion; and 6) *feedback*, the degree to which the job provides clear and direct information about performance effectiveness [42, 43]. Another important aspect of the work environment is the extent to which support

opportunities are provided (e.g., organizational support) [40, 44].

Some work environment aspects have received empirical support in relation to work motivation. For example, Humphrey et al. found that task identity, task significance, skill variety, autonomy, and organizational support (administrative and social support) are inversely related to negative affect (burnout) [40]. This means that some of the most important work environment aspects associated with job satisfaction are the work itself, autonomy, and organizational support ([20, 21, 24]. In addition, the extent to which an organization provides opportunities for getting assistance and advice from others is likely to impact positive mood (less burnout), which is associated with good interpersonal relationships, a fundamental aspect of motivation [45, 46]. Taken together, the evidence points to direct and indirect ways in which different work environment aspects may shape faculty work motivation.

According to AET, work events initiate affective experiences. That is, individuals respond emotionally to certain events that happen to them in work settings. When considering work motivation, two events to consider are communication openness and health. First, communication openness is a work event or something that occurs to an individual on the job and is associated with decreased feeling of social isolation and alienation from work [35, 47, 48]. As communication is necessary to effectively balance teaching demands and a plethora of administrative tasks, communication openness is relevant to the domain of faculty work.

Second, understanding general health and its relation to work motivation is important because of the financial cost associated with rising health insurance premiums and illness-related productivity loss [49]. Unfortunately, AET does not provide guidance for how to account for an individual's general health. However, the Conservation of Resources (COR) model may provide a way to bridge this gap [50]. A central notion of COR is that humans strive to protect and enhance the self through the acquisition and maintenance of resources, including objective resources (financial assets, adequate financial credit, etc.), work conditions (tenure, seniority, etc.), personal characteristics (general health, autonomy, etc.), and energies (time, knowledge, etc.). As such, COR has been used as a principal explanatory mechanism for understanding feelings of being burned out [51, 52].

Ohly and Schmitt found that health is the best predictor of feeling exhausted in a work event taxonomy [47]. In line with COR, general health can be considered a resource. Feeling healthy may reduce feelings of burnout whereas feeling less healthy may increase the experience of burnout. For example, faculty who feel less healthy may prefer working from home, or avoid attending university events, inadvertently limiting their opportunities for open communication or social interactions that could provide additional support. Over time, faculty who experience less positive work events and resources are less equipped to meet increasing performance expectations and will likely experience burnout.

1.4. Consequences of Burnout

Burnout is associated with several negative consequences [28-30]. Here, the negative consequence of interest is intent to leave academia. However, the relationship between burnout and intent to leave academia is intricate, involving other variables. One such variable is a faculty member's bond or link to the academic institution (commitment) [53, 54]. Past research has shown that burnout predicts decreased job satisfaction, reduced commitment, and increased turnover intention [55]. Other research indicates that burnout is related to health problems, decreased job satisfaction, and job changes [36]. This suggests that intent to leave academia results from burnout by way of commitment and job satisfaction.

1.5. Proposed Model

Based on the previously discussed research, the faculty work

motivation model in Figure 1 and corresponding hypotheses are offered:

H1: The work environment will impact burnout. Specifically, it is expected that more work characteristics (i.e., task identity, task significance, (less) task variety, (less) skill variety, autonomy, and feedback) and organizational support predict less burnout.

H2: The work environment will impact job satisfaction. More work characteristics and organizational support will predict more job satisfaction.

H3: Work events will impact burnout. Specifically, faculty who feel healthy and work in an environment that facilitates open communication will experience less burnout.

H4: Burnout will predict commitment.

H5: Burnout will predict job satisfaction.

H6: Commitment also predicts job satisfaction.

H7: Job satisfaction will predict intent to leave academia.

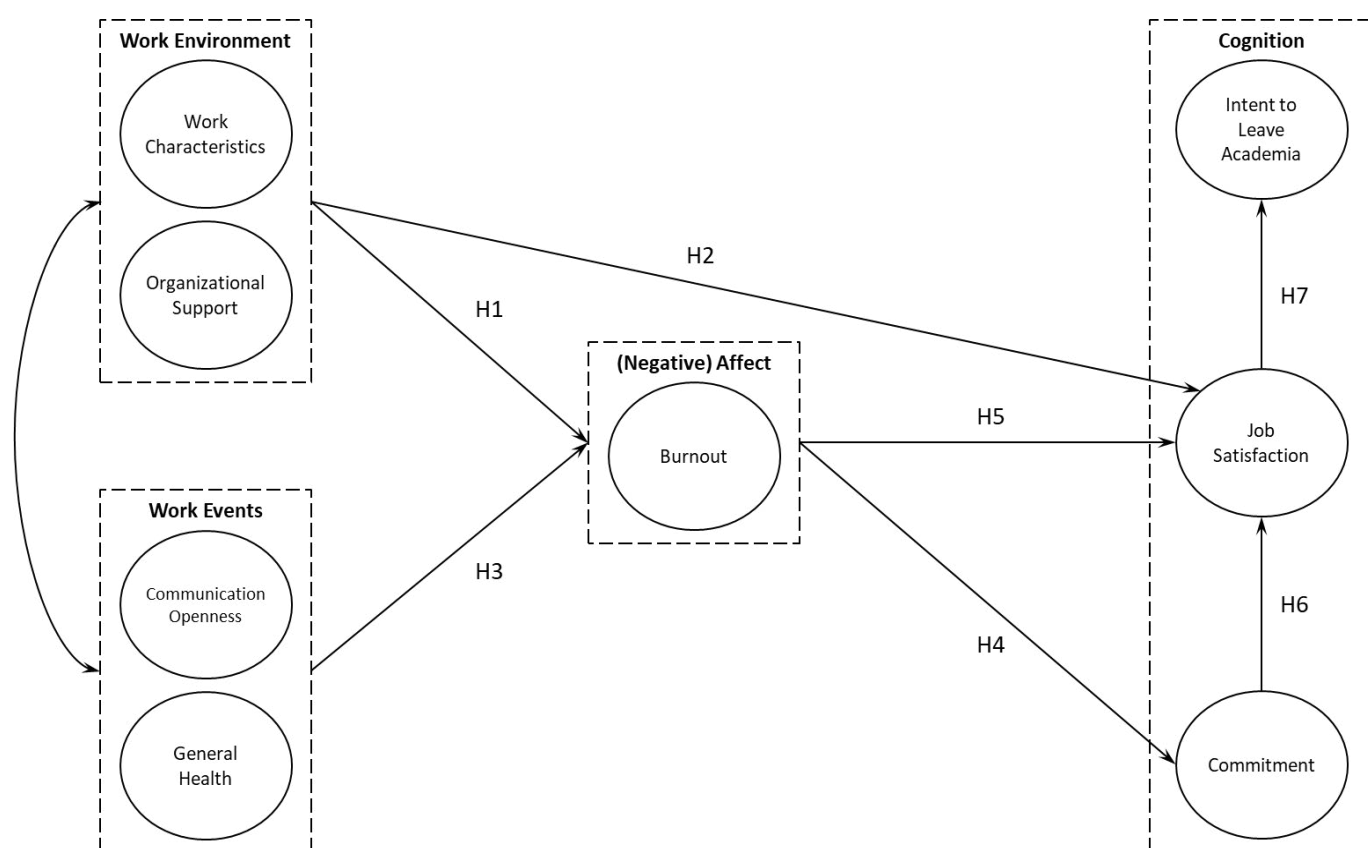


Figure 1: Proposed Faculty Work Motivation Model

2. Methods

2.1. Participants and Procedures

Approximately fourteen hundred faculty ($n = 1439$) employed at 24 doctoral universities participated. Universities were randomly selected from a list of all U.S. doctoral universities as defined by the 2010 Carnegie Classifications (i.e., High and Very High Research Activity Universities) and the National Center for Education Statistics Integrated Postsecondary Education Data System (IPEDS).

Participating faculty were recruited via email. The initial email

indicated that the purpose of the study was to examine the job satisfaction of faculty and that only currently employed faculty (excluding graduate students or staff) should fill out the 20 to 25 minute online survey. The online survey was created using Qualtrics Survey Software. The initial invitation was followed by two reminders to complete the survey at their earliest convenience. To maintain the anonymity of the participants no personal information was collected. No incentives were offered or provided. The study was approved by the first author's Institutional Review Board (IRB).

The demographics for the study are provided in Tables 1 and 2. Participants in the study were predominantly White/Caucasian ($n = 1206$). There were slightly more males (55% $n = 757$)

than females (45% $n = 625$). Approximately two thirds of the responses were from Assistant ($n = 353$), Associate ($n = 367$), and Full Professors ($n = 412$).

Gender	Race/Ethnicity						Total
	Black/ African American	Asian / Pacific Islander	White/ Caucasian	Latino/ Hispanic	Native American	Other	
Male	22	32	665	18	3	17	757
Female	20	25	541	17	1	21	625
Total	42	57	1206	35	4	38	1382

Table 1: Demographics by Gender and Race/Ethnicity

Department	Position							Total
	Assist.	Assoc.	Full	Dist./ Eminent	Emeritus	Lecturer	Other / Adjunct	
Humanities/ Arts & Letters	58	81	87	21	3	43	32	325
Business	14	23	24	9	0	8	11	89
Education	30	39	36	2	2	9	9	127
Engineering	34	30	33	4	0	5	4	110
Health Sciences	66	36	51	4	0	3	11	171
Social Sciences	62	58	69	8	3	11	15	226
Life Sciences	19	20	29	5	1	9	7	90
Sciences	43	41	45	9	4	13	10	165
Other	27	39	38	6	3	7	16	136
Total	353	367	412	68	16	108	115	1439

Table 2: Demographics by Department and Position

2.2. Work Environment Measures

2.2.1. Work Characteristics

Work characteristics were measured with 22 items from the Work Design Questionnaire (WDQ) [43]. The items comprise six dimensions: task identity (4 items), task significance (4 items), task variety (4 items), skill variety (4 items), autonomy (3 items), and feedback (3 items). Items were measured with a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Some sample items are “The job allows me to complete work I start” (*task identity*); “The job has a large impact on people outside the organization” (*task significance*); “The job involves a great deal of task variety” (*task variety*); “The job requires me to use a number of complex or high-level skills” (*skill variety*); “The job allows me to decide on my own how to go about doing my work” (*autonomy*); and “The job itself provides me with information about my performance” (*feedback from the job*). For the WDQ, Morgeson and Humphrey reported a coefficient (Cronbach’s) alpha that ranged from 0.85 to 0.95 for the six dimensions [43].

2.2.2. Organizational Support

Organizational support was measured with the 17 item Perceived Organizational Support scale (POS) [56].

Participants indicated their level of agreement to statements such as “Help is available from the organization when I have a problem” on a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Eisenberger et al. reported a coefficient alpha of 0.97 for the scale [56].

2.3. Work Events Measures

2.3.1. Communication Openness

Communication openness was measured with a 5 item scale [20, 57]. Participants indicated their level of agreement to questions such as “It is easy to ask advice from any co-worker in this university” on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Daly and Dee reported a coefficient alpha of 0.84 for the scale [20].

2.3.2. General Health

Perception of general health was measured with an item from the 36 item short-form health survey (SF 36) [58]. The item asked participants to rate “Would you say your health in general is...” on a Likert-type scale ranging from 1 (excellent) to 5 (poor). The item was reversed scored so that the new range is from 1 (poor) to 5 (excellent); i.e., higher score indicates better health. Single items assessing

general health patterns have been successfully used in related constructs such as physical activity [59].

2.4. (Negative) Affect Measure

2.4.1. Burnout

A key component of burnout is emotional exhaustion [36-38]. Thus, burnout was measured with the 9-item Emotional Exhaustion (EE) subscale of the Maslach Burnout Inventory (MBI), the most widely used burnout measure [38, 60]. Participants indicated their level of agreement to statements such as "I feel emotionally drained from my work" on a Likert scale ranging from 1 (very strongly disagree) to 7 (very strongly agree). Kalliath et al. reported coefficient alphas of 0.90, 0.84, and 0.84 for the EE subscale for a sample of nurses, laboratory technicians, and managers, respectively [37].

2.5. Cognition Measures

2.5.1. Commitment

Faculty commitment toward their institutions was measured using a 7 item scale [20, 23]. Participants indicated their level of agreement to statements such as "I speak highly of this university to my friends" on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Daly and Dee reported a coefficient alpha of 0.89 [20].

2.5.2. Job Satisfaction

Job satisfaction was measured using the 18-item Job in General scale (JIG) [61]. Participants responded to items with evaluative words or short phrases (e.g., pleasant, waste of time) in one of three ways: "yes" if it described their work, "no" if it did not describe their work, or "?" if they could not decide. Ironson et al. reported a coefficient alpha of 0.91 for the scale [61].

2.5.3. Intent to Leave Academia

Intent to leave academia was measured using a 5-item scale [62]. Participants responded to statements such as "Consider a permanent departure from academia" on a Likert scale ranging from 1 (very unlikely) to 5 (very likely). Barnes et al. reported a coefficient alpha of 0.82 for the scale [62].

3. Results

3.1. Overview of Analyses

Structural equation modeling (SEM) was the primary method of analyses. All models were estimated with full information maximum likelihood (ML) to handle missing data and bootstrapping to alleviate non-normality. All statistical tests were conducted with $\alpha = .05$ and bootstrapping was done using 1,000 bootstrap samples. Model fit was assessed using the following criteria: comparative fit index (CFI) $\geq .95$, Tucker-Lewis Index (TLI) $\geq .95$, standardized root mean square residual (SRMR) $\leq .08$, and root mean square error of approximation (RMSEA) $\leq .08$ [63]. All model adjustments were considered by consulting modification indices greater than 10, indicating that the corresponding parameter should be estimated to improve model fit. In the interest of parsimony, non-significant structural paths and correlations were removed.

Prior to testing the model in Figure 1, separate confirmatory factor analyses (CFAs) were fitted for each measurement instrument. In the interest of parsimony, redundant items and/or items that contributed little information were removed from all CFAs [64]. The reliability of the measures was assessed with coefficient (Cronbach's) alpha with corresponding normal theory bootstrap confidence intervals (CIs) estimated using 1,000 bootstrap samples [65]. The correlations and descriptive statistics for the final construct/ variables of interest are in Table 3.

3.2. Measurement Models

Except for a six factor CFA for the Work Design Questionnaire (WDQ), one-factor CFAs were fit for all measurement instruments. Only the burnout and job satisfaction measurement instruments had initial questionable fit. All other measurement instruments had acceptable fit. Based on conceptual considerations and modification indices, items were removed from the measurement instruments with initial questionable fit. Loadings for all final fitted CFAs were above 0.40. Table 4 has all relevant CFA model fit and coefficient alpha information.

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. AUTO	(.93)												
2. TI	.29*	(.90)											
3. TS	.16*	.27*	(.88)										
4. TV	.39*	.08*	.27*	(.94)									
5. SV	.19*	.01	.26*	.48*	(.92)								
6. FBCK	.28*	.47*	.33*	.19*	.13*	(.88)							
7. OS	.40*	.35*	.26*	.21*	.06*	.45*	(.97)						
8. COM	.36*	.33*	.22*	.18*	.07*	.36*	.63*	(.87)					
9. GHLTH	.19*	.17*	.10*	.13*	.06*	.14*	.19*	.16*	-				
10. BRNT	-.40*	-.45*	-.25*	-.11*	.02	-.38*	-.54*	-.45*	-.32*	(.92)			
11. CMT	.32*	.33*	.33*	.19*	.11*	.34*	.65*	.57*	.15*	-.51*	(.90)		
12. JS	.44*	.33*	.22*	.13*	.04	.34*	.55*	.47*	.21*	-.57*	.55*	(.91)	
13. INT	-.31*	-.26*	-.22*	-.18*	-.08*	-.27*	-.41*	-.33*	-.18*	.48*	-.37*	-.40*	(.87)
N	1427	1415	1424	1420	1410	1407	1359	1419	1439	1403	1395	1364	1407
Mean	13.07	12.46	15.11	17.13	17.90	10.21	73.65	16.28	3.76	26.52	24.20	26.08	10.50
SD	2.31	4.13	3.18	2.97	2.18	2.65	23.51	4.29	0.99	10.33	5.98	7.14	5.05
No. of Items	3	4	4	4	4	3	17	5	1	8	7	10	5

Note. Coefficient alphas in parentheses on the diagonal. AUTO = Autonomy; TI = Task Identity; TS = Task Significance; TV = Task Variety; SV = Skill Variety; FBCK = Feedback; OS = Organizational Support; COM = Communication Openness; GHLTH = General Health; BRNT = Burnout; CMT = Commitment; JS = Job Satisfaction; INT = Intent to Leave Academia; SD = Standard Deviation; * indicates statistical significance at $\alpha = .05$.

Table 3: Correlations with Descriptive Statistics for the Variables of Interest

Construct	No. of Items	Chi-Square	p_{bs} value	CFI	TLI	SRMR	RMSEA 90% CI	Coefficient α 95% CI
Work Environment Charact. Initial Model	22	$\chi^2(194, N= 1309) = 1210.92$	<.001	.96	.95	.05	.06 [.06, .07]	See notes below
Organizational Support Initial Model	17	$\chi^2(119, N= 1359) = 1732.81$	<.001	.92	.91	.03	.10 [.10, .10]	.97 [.96, .97]
Communication Openness Initial Model	5	$\chi^2(5, N= 1419) = 123.27$	<.001	.97	.93	.03	.13 [.11, .15]	.87 [.86, .89]
Burnout Initial Model	9	$\chi^2(27, N= 1391) = 1138.03$	<.001	.88	.83	.07	.17 [.16, .18]	.92 [.91, .93]
Final Model	8	$\chi^2(20, N= 1403) = 148.99$	<.001	.98	.98	.02	.07 [.06, .08]	.92 [.92, .93]
Commitment Initial Model	7	$\chi^2(14, N= 1395) = 289.50$	<.001	.95	.93	.04	.12 [.11, .13]	.90 [.89, .91]
Job Satisfaction Initial Model	18	$\chi^2(135, N= 1347) = 6059.60$	<.001	.76	.73	.09	.13 [.12, .13]	.91 [.90, .92]
Final Model	10	$\chi^2(35, N= 1364) = 749.09$	<.001	.91	.88	.05	.12 [.12, .13]	.91 [.90, .92]
Intent to Leave Academia Initial Model	5	$\chi^2(5, N= 1407) = 33.52$	<.001	.99	.98	.01	.06 [.04, .09]	.87 [.86, .88]

Note. All estimates are based on 1,000 bootstrap samples. p_{bs} = bootstrap p value; CFI = comparative fit index; TLI = Tucker Lewis index; SRMR = standardized root mean square residual; and RMSEA = root mean square error of approximation. Numbers in brackets are confidence intervals. Work Environment Characteristics measured by the Work Design Questionnaire (WDQ); estimated coefficient alphas for WDQ dimensions were .93 [.92, .94] for autonomy; .90 [.89, .91] for task identity; .88 [.87, .89] for task significance; .94 [.93, .95] for task variety; .92 [.92, .93] for skill variety; and .88 [.87, .90] for feedback

Table 4: Summary of Measurement Models

3.3. Structural Model

Results of the model in Figure 1 were reasonable: $\chi^2(2654, N = 1101) = 8410.53$, $P_{bs} < .001$, CFI = .91, TLI = .91, SRMR = .91, RMSEA [90% CI] = .04 [.04, .05]. Based on conceptual considerations and modification indices, the model was adjusted. The final fitted model had good fit and is presented in Figure 2 along with corresponding statistics.

First, for the relationship between work environment characteristics and work events, several predicted results were found. As expected, communication openness had a significant positive correlation with work environment characteristics (task identity, $r = 0.33^*$; task significance, $r = 0.22^*$; task variety, $r = 0.18^*$; and autonomy, $r = 0.36^*$) and organizational support ($r = 0.63^*$). In addition, general health had a significant positive correlation with work environment characteristics (task identity, $r = 0.17^*$; task significance, $r = 0.10^*$; task variety, $r = 0.13^*$; skill variety, $r = 0.06^*$; and autonomy, $r = 0.19^*$) and organization support ($r = 0.19^*$); see Table 3.

Second, for the impact of work environment aspects on negative affect (burnout), several predicted results were found. Task identity ($b = -.22^*$), task significance ($b = -.12^*$), autonomy ($b = -.20^*$), and organizational support ($b = -.25^*$) all had a significant negative effect on burnout. Unexpectedly, task variety ($b = 0.11^*$) and skill variety ($b = 0.08^*$) had a significant positive effect on burnout.

Third, for the impact of work environment aspects on work attitudes, three predicted results were found. Specifically, autonomy ($b = 0.19^*$) and organizational support ($b = 0.18^*$) had a significant positive effect on job satisfaction. On the other hand, task variety ($b = -.06^*$) had a significant negative effect on job satisfaction.

Fourth, for the impact of work events on negative affect (burnout), all predicted results were found. Feeling healthy ($b = -.19^*$) had a significant negative effect on burnout, and communication openness ($b = -.15^*$) had a significant negative

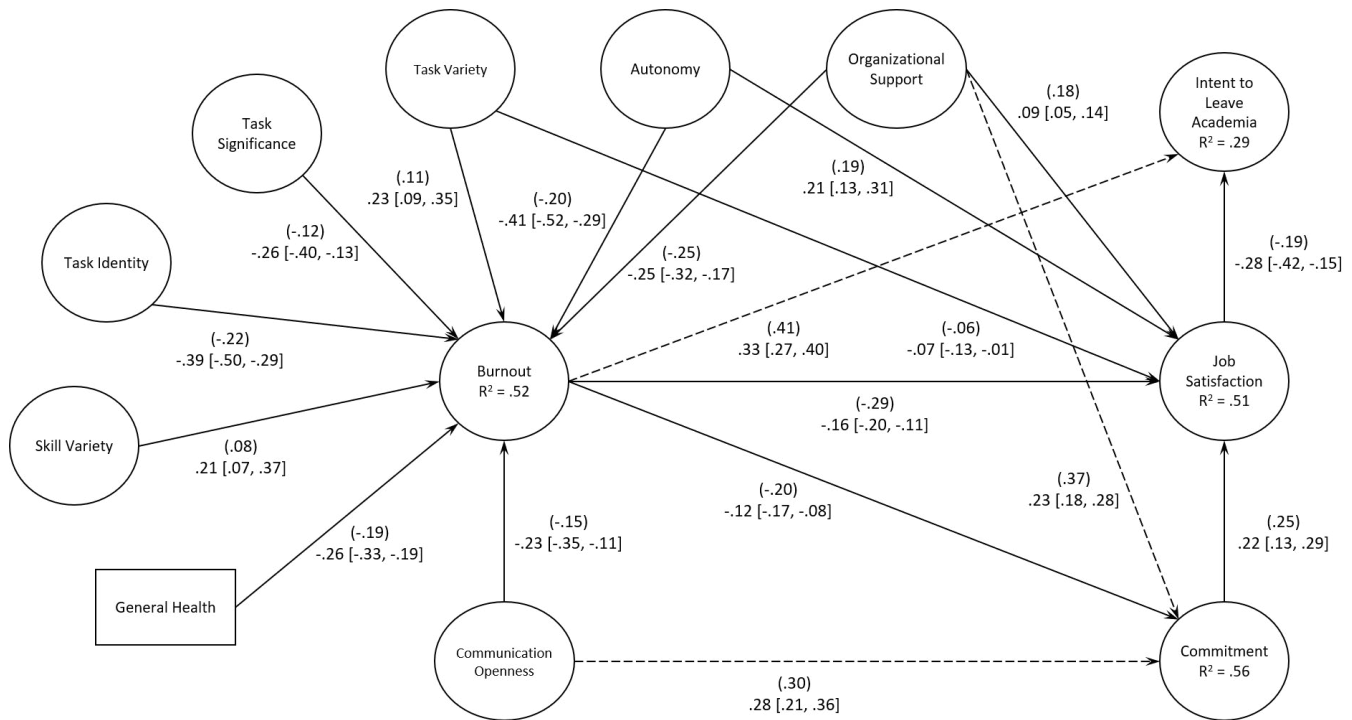
effect on burnout.

Fifth, for the impact of negative affect (burnout) on commitment, the predicted result was found. Burnout ($b = -.20^*$) had a significant negative effect on commitment. However, modification indices indicated a positive effect of organizational support ($b = 0.37^*$) and communication openness ($b = 0.30^*$) on commitment.

Sixth, for the impact of negative affect (burnout) on work attitudes, all predicted results were found. Here, burnout ($b = -.29^*$) had a significant negative effect on job satisfaction, and commitment ($b = 0.25^*$) had a significant positive effect on job satisfaction.

Finally, for the impact of work attitudes on judgement driven behaviors, the predicted result was found. Specifically, job satisfaction ($b = -.19^*$) had a significant negative effect on intent to leave academia. However, a modification index indicated a positive effect of burnout ($b = 0.41^*$) on intent to leave academia.

In summary, the results indicate that faculty who reported less task identity, task significance, autonomy, organizational support, communication openness, and feeling less healthy experienced more burnout. In addition, faculty who reported more task variety and skill variety experienced more burnout. In total, these effects explained 52% of the burnout variance. In addition, faculty who reported more autonomy, organizational support, and commitment experienced more job satisfaction. By contrast, faculty who reported less task variety and burnout experienced more job satisfaction. Here, the effects explained 51% of the job satisfaction variance. Furthermore, faculty who reported less burnout, more organizational support, and communication openness experienced more commitment. These effects explained 56% of the commitment variance. Finally, faculty who reported more burnout and less job satisfaction indicated more intent to leave academia. These last effects explained 29% of the intent to leave academia variance.



Note. Standardized estimates are in parentheses followed by unstandardized estimates and 95% bias-corrected CIs in brackets. All estimates based on 1,000 bootstrap samples. Model $\chi^2(2438, N = 1121) = 6448.51, P_{bs} < .001, CFI = .94, TLI = .93, SRMR = .05, RMSEA [90\% CI] = .04 [.04, .04]$. All estimates are statistically significant at $\alpha = .05$. Dotted paths were included based on modification indices and conceptual considerations.

Figure 2: Final Fitted Faculty Work Motivation Model

4. Discussion

The changing nature of external and internal pressures on higher education have triggered increased demands on faculty work [8]. The increased demands have prompted some faculty to consider leaving universities. Although turnover can be viewed as functional when low performing employees are terminated or leave, replacing them is nevertheless costly in terms of performance, time, and economics [66]. When rates of turnover increase for high performing groups like faculty at doctoral universities, turbulence occurs with performance capacity becoming downward sloping [67]. It takes time for working relationships to be repaired or reestablished, for new faculty to learn/ adapt to university policies, and performance to be validated. In addition, there are financial ramifications with replacing faculty like the University of Wisconsin spending an estimated \$24 million on retention interventions after an increase in faculty turnover [12]. In the end, leaving academia has a profound impact on both faculty and the university. For faculty, it is a grueling decision resulting in a career change. For academia, it is turnover resulting in an unnecessary depletion of financial and human resources.

Given the increased job demands in academia, the purpose here was to propose a new AET based conceptual model of faculty work motivation that was empirically tested on a sample of faculty from U.S. doctoral universities (i.e., High and Very High Research Activity Universities). To date, this is the first research effort to demonstrate in one setting the intricate interplay between the work environment (work characteristics, etc.),

affect (burnout), and cognition (commitment, etc.) in relation to faculty work motivation at doctoral universities.

4.1. Effects of the Work Environment and Work Events

As faculty work in an increasingly challenging environment, it turns out that the relationship between the work environment, work events, and burnout is more complex than previously understood. In addition to supporting previous findings that burnout increases with increased job demand (e.g., skill variety and task variety), this study shows that it is important to also consider other aspects of the work environment and work events [68]. For example, faculty who felt supported/ understood by others (communication openness) also felt they had autonomy in structuring their daily tasks, viewed their job as important, completed their tasks from beginning to end, and experienced less task variety; i.e., had better work characteristics. In addition, previous research has indicated that certain aspects of the faculty work environment may be more likely to trigger burnout and coexist with communication openness and health [40, 69]. As such, it appears that aspects of the work environment do not necessarily impact work motivation in isolation.

As suggested by COR, individuals leverage and/or try to protect available resources when faced with increased demands [50]. In this study, faculty search for and use available work environment resources like organizational support and/or communication openness (i.e., social resources). However, when challenged with increased demands, faculty may not have the opportunity to leverage and/or protect such resources. In addition, faculty

are more vulnerable to burnout as the job increases in task/skill variety (e.g., an increase in the variety of research projects requiring a variety of skills) with diminished autonomy, and task identity/ significance, along with little to no organizational support (e.g., less recognition), communication openness, and a decrease in health. In short, burnout results from the inability to leverage and/or protect available resources from multiple demands (see Figure 2). Over time, faculty have a reduced capacity to offset resource loss and may experience emotional dysregulation resulting in burnout and subsequently diminished commitment and job satisfaction.

4.2. Burnout as a Key Explanatory Mechanism

In line with AET, this study found that burnout is an important contributor to faculty value judgements, work attitudes, and intent to leave academia. Specifically, burnout mediates the relationship of the work environment (work characteristics and organizational support) with commitment and job satisfaction. Whereas past educational research has shown that autonomy, which elicits a state of control of outcomes, has a direct impact on job satisfaction and commitment, the current study showed that this relationship involves other work environment aspects (task variety and organizational support) in addition to burnout [20].

In addition, this study demonstrates the importance of support and openness. Although not initially hypothesized, it was demonstrated that organizational support and communication openness each have a direct effect to commitment. In fact, as indicated by the standardized effects, organizational support and communication openness had a stronger effect on commitment than burnout. This finding is in line with previous research suggesting that support and open social exchanges are key determinants of faculty commitment [25]. As such, there is a clear interplay of organizational support, communication openness, and burnout in relation to commitment.

Burnout is a likely result, given that faculty are expected to fulfill a plethora of roles with limited resources [68]. To mitigate job demands, faculty employ available resources from the environment, but when these resources are insufficient, one result is burnout. Once burnout is reached, faculty begin to question their job satisfaction and commitment and subsequently mull over their intention to leave academia. Therefore, burnout links different work environment aspects to work attitudes, value judgments, and an intention to leave academia.

4.3. Future Research

This study makes three key contributions to faculty work motivation. First, this study offers an understanding of the factors that impact faculty work motivation that is supported by theory. One aspect is that it provides a more comprehensive understanding of the relationship between the work environment, work events, and burnout. Further insights may be obtained by qualitatively exploring the nature of the impact of the work environment and events on burnout. For instance, recent text analytics advances may enable researchers to obtain richer information from qualitative methods, such as focus groups and content analysis techniques, to examine the implications of

different work events [70].

Second, this study indicates a meaningful relationship between faculty health and burnout. Consistent with the importance of mental health and the long-term effect of exercise (an indicator of health), the findings indicate that a decrease in faculty overall health directly predicts burnout [71-73]. In this respect, it may be fruitful to investigate mental health in faculty work motivation research.

Third, this study offers a more holistic understanding of faculty work motivation. Given the long term nature of burnout, it may be fruitful to examine how these factors unfold over time. Therefore, it would be interesting to focus on developing ideas that link short episodic forms of burnout to long term forms along with other work motivation constructs.

4.4. Limitations

Like any study, the present one has some limitations. First, the current study examined internal factors to investigate faculty work motivation at doctoral universities. However, it is possible for faculty to be impacted by social, political, legal, and economic external factors [74]. Second, although participants all came from doctoral universities, variations in social, economic micro climates, or administrative policies could lead to very different faculty experiences. Third, faculty from teaching universities were not included. Faculty motivation may be different between research and teaching universities in that faculty from teaching universities may also experience burnout, but possibly from different sources. Therefore, future faculty work motivation research could also consider external factors and/or variations between doctoral universities, such as public vs private universities. In addition, the variables and hypotheses tested here should be investigated in teaching universities.

4.5. Higher Education Policy Implications

Results of the current research have some implications. Specifically, institutions could use these insights to design policies that foster a work environment that promotes faculty mental and physical well-being. Such policies could include enhancements like meditation rooms, faculty only gyms, diversity of reasonably priced healthy food options, and/or adoption of health care programs that provide incentives for meeting certain fitness goals. Because enriching one resource may provide opportunities for enriching other resources, faculty with the opportunity to attend faculty-only exercise gyms on a regular basis, may also experience more opportunities for communication with colleagues from the university. Over time, faculty would experience better health, less burnout, and greater commitment to the university.

Given that AET within faculty work motivation research is in its early stages, universities may benefit from frequent reviews of their existing engagement policies to benchmark for best practices. In this respect, human resources programs and training could be (re)designed with the goal of reducing burnout. In the context of training, one example is to provide new faculty with more institutional support in the form of formalized peer-mentoring and new hire orientation programs

promoting a greater understanding of the campus community and ways to contribute to a healthy-campus climate. In terms of communication openness, an example is to lay out clear expectations and use valid performance reviews for teaching, research, and service.

Unfortunately, there is evidence that communication openness is lacking in that commonly used faculty performance measures may not be valid. Several studies have demonstrated that teaching evaluations by students are ineffective and/or possibly encourage bad teaching [75, 76]. As an example of their ineffectiveness, a simple internet search will reveal personal websites and blogs for improving teaching evaluations with inappropriate suggestions like baking cookies for students, giving students your cell number, giving an easy assignment right before evaluations, allowing infinite exam retakes, etc. As such, the current methods of evaluating faculty work do not appear to be valid for evaluating teaching, subsequently creating a lack of communication openness.

A challenge to the recommended policies (e.g., faculty only gyms, etc.) is the perception that they are expensive with no clear impact on faculty productivity. For institutions that might be hesitant to consider a policy change, this study showed that feeling less healthy combined with increased expectations increases faculty burnout, and subsequently their intent to leave academia. Running a university is expensive and complex, but it makes little sense for high rates of faculty turnover to be a part of that expense. In the end, policies aimed at reducing turnover may involve as much financial cost as turnover (i.e., both cost the same). However, if effective, these policies would reduce the time and resource costs associated with turnover and help improve the overall health and productivity of faculty. Taken together, these recommendations offer several approaches or practices for fostering a thriving campus climate.

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