

Burnout: Examining the Effects of Job Characteristics Across Extension Disciplines

Abstract

We conducted a cross-sectional study grounded in job demands–resources theory to examine the relationship between job characteristics and burnout across Extension disciplines. Job demands predicted burnout regardless of discipline; however, job resources predicted burnout for only three of the five disciplines studied—agriculture, family and consumer sciences, and 4-H. Accordingly, reducing job demands may be preferable to enhancing job resources as a strategy for combating burnout. Additionally, findings for community development and 4-H educators suggest that they may be at higher risk for burnout and warrant further examination. Extension leadership should consider implementing programmatic policies and strategies that address Extension educators' job characteristics within given disciplines.

Keywords: [job demands](#), [job resources](#), [burnout](#), [Extension educators](#)

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Introduction

Burnout has been described as sabotaging workforce retention (Wilkie, 2017) and costing the U.S. economy upward of half a trillion dollars annually (Clifton, 2016). Recently classified as an organizational phenomenon by the World Health Organization (2019), burnout is defined as a persistent negative work-related state of mind that has been associated with several negative outcomes across different organizations. These negative outcomes as identified via various studies include reduced productivity, job satisfaction, and work engagement (Boles, Dean, Ricks, Short, & Wang, 2000; Maslach Jackson, & Leiter, 1986); deterioration in quality of care or service (Maslach et al., 1986); and absenteeism, turnover, low morale, and reduced job satisfaction and work engagement (Rothmann, 2003).

Characterized by exhaustion, cynicism, and reduced professional efficacy (Maslach et al., 1986), burnout has been investigated and discussed within the Extension literature for over 30 years (Enslie, 2005; Harder, Gouldthorpe, & Goodwin, 2015; Igodan & Newcomb, 1986; Kutilek, 2000; Place, Jacob, Summerhill, & Arrington, 2000; Russell et al., 2019; Sears, Urizar, & Evans, 2000). Sears et al. (2000) found that a significant proportion of Extension employees faced emotional fatigue, perceived professional ineffectiveness, and depression. Igodan and Newcomb (1986) concluded that all Extension educators would experience burnout at one time or another, and Kutilek (2000) noted that burnout significantly and negatively affected the Extension workforce and overall organization. Within the Extension literature,

researchers have suggested that discipline influences educators' stress and burnout (Arnold & Place, 2010; Ezell, 2003; Fetsch, Flashman, & Jeffiers, 1984; Fetsch & Kennington, 1997; Igodan & Newcomb, 1986; Manton & van Es, 1985). In fact, Igodan and Newcomb (1986) purported that discipline was the strongest predictor of burnout. Further, Manton and van Es (1985) and Fetsch and Kennington (1997) found that agriculture educators had the fewest stressors when compared to family and consumer sciences and 4-H educators.

Ongoing agricultural, nutritional, financial, and environmental changes coupled with variations in the job characteristics across Extension disciplines make understanding the role of burnout among Extension educators as relevant today as ever. Job characteristics, classified as the demands and resources associated with a given occupation, have been defined as the physical, psychological, social, and organizational aspects of a job (Bakker & Demerouti, 2007). Better understanding burnout as it relates to job characteristics and finding solutions to manage workforce challenges are important to the continued success of Extension (Russell et al., 2019). Accordingly, we conducted a study to examine the relationship between job characteristics and burnout across Extension disciplines.

Theoretical Framework and Review of Literature

Our research was guided by the job demands–resources theory (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001), which comprises principles from the work motivation, job design, and job stress literatures. The job demands–resources theory has been used to understand and explain job burnout as an imbalance between job demands placed on individuals and the job resources available to deal with those demands. Job demands–resources theory posits that employee well-being is derived from two relatively independent processes: the health impairment process and the motivational process (Demerouti et al., 2001). The health impairment process is evident when poorly designed jobs and chronic job demands exhaust employees' mental and physical resources, thereby potentially leading to burnout and subsequent health problems. The motivational process is evident when the existence of job resources leads to a positive affective state, which may foster positive organizational outcomes, such as quality performance, low sickness absence, work-related well-being, engagement, and organizational commitment (Hakanen, Bakker, & Schaufeli, 2006).

Job demands are those characteristics that require considerable physical and psychological effort and involve physiological and psychological costs, such as exhaustion and burnout (Van den Broeck, Van Ruyseveldt, Smulders, & De Witte, 2011). Researchers have identified several unique job demands within Extension, such as geographic isolation, excessive driving and traveling, and emotionally demanding interactions with clients, peers, local government officials, and administrators (Bartholomew & Smith, 1990); diminishing resources and reduced access to technology (Borr & Young, 2010; Bradley, Driscoll, & Bardon, 2012); irregular and long work hours (Kutilek, Conklin, & Gunderson, 2002; Rousan & Henderson, 1996); and tight deadlines, multiple reporting structures, and a generally busy work culture (Peters, Zvonkovic, & Bowman, 2008).

Job resources are those characteristics that foster learning, development, and goal achievement (Bakker & Demerouti, 2007). Although not addressed as prevalently as job demands in the Extension literature, job resources such as flexibility, autonomy, and rewarding projects (Arnold & Place, 2010; Ensle, 2005) and meaningful work including community outreach and involvement (Bradley et al., 2012) have been identified.

Research has suggested that job demands may lead to burnout, which has been positively related to intentions and decisions to leave Extension (Gutter & Stephenson, 2016; Harder, Gouldthorpe, & Goodwin, 2014; Martin & Kaufman, 2013; Safrit & Owen, 2010), whereas job resources may lead to positive affect (Arnold & Place, 2010; Bradley et al., 2012; Ensle, 2005; Harder et al., 2014; Strong & Harder, 2009). Consistent with the job demands–resources theory, we expected job demands to lead to burnout and job resources to diminish burnout. Furthermore, we expected the relationship between job characteristics and burnout to differ across disciplines.

Purpose and Objectives

The purpose of the study reported here was to examine the relationship between job characteristics and burnout across Extension disciplines. Specifically, the objectives were

1. to examine the relationship between job demands and burnout across disciplines and
2. to examine the relationship between job resources and burnout across disciplines.

Methods

Sample

In our cross-sectional quantitative study, we used census sampling (Black, 1999) and survey methodology to collect data from full-time Extension educators with active membership in at least one of the Extension associations: Association of Natural Resources Extension Professionals, Epsilon Sigma Phi, National Association of Community Development Extension Professionals, National Association of County Agricultural Agents, National Association of Extension 4-H Agents, and National Extension Association of Family and Consumer Sciences. All associations, with the exception of National Association of County Agricultural Agents, distributed the survey to their active membership electronically. National Association of Extension Program and Staff Development Professionals was not invited to disseminate the survey as many members have administrative responsibility rather than education roles. In addition, the U.S. Department of Agriculture National Institute of Food and Agriculture, American Association of Family and Consumer Sciences, and Association for Financial Counseling, Planning, and Education shared the survey electronically with their Extension networks. To increase participation and to protect against bias, we offered ten \$50 Amazon gift cards as incentives. Prior to data collection, institutional review board approval from the University of Maryland Eastern Shore was obtained.

Data Collection

We collected all data using the Qualtrics web-based survey platform. We used the Demand Induced Strain Compensation 2.1 questionnaire (DeJonge et al., 2007) to measure job characteristics and the Maslach Burnout Inventory (Maslach et al., 1986) to measure burnout. Cronbach alphas for each construct represented acceptability: job demands was 0.882, job resources was 0.878, and burnout was 0.768. Study participants consented to the research prior to accessing the web-based instrument. The full survey had 86 items, took approximately 20 min to complete, and was open for 6 weeks in the fall of 2016. The final sample size ($n = 855$) represented a response rate of 15.09%. All data were transmitted anonymously.

Data Analysis

Using SPSS version 25, we applied Pearson correlation and linear regression to assess the direction, strength, and significance of relationships between variables. Additionally, we conducted a one-way analysis of variance (ANOVA) to examine job demands, job resources, and burnout differences by discipline. Data were considered significant at an alpha level of .05.

Findings

Sociodemographic and job-related information are presented in Tables 1 and 2, respectively. Table 1 provides demographic information, and Table 2 shows job-related information, including discipline, region, and years of service. All regions and disciplines were represented in the sample and are shown as a cross-tabulation in Table 3. Among the 855 unique respondents, discipline responses ($n = 1,104$) exceeded the sample size, indicating that educators were responsible for multiple disciplines. Table 4 shows relationships across disciplines for educators who reported multiple-discipline responsibility.

Table 1.
Sociodemographic Information for Study Subjects

Characteristic	Number of respondents	Percentage
Gender		
Female	655	76.6
Male	197	23.1
Other	1	0.10
Age		
Under 25	25	2.9
25-34	223	26.1
35-44	204	23.9
45-54	182	21.3
55-64	190	22.2
65 and older	29	3.4
Marital status		
Married	594	69.5
Never married	161	18.8
Divorced	81	9.5
Widowed	8	0.9
Separated	8	0.9

Race/ethnicity		
American Indian/Alaska Native	16	1.9
Asian American, Native Hawaiian, Pacific Islander	15	1.7
Black/African American	34	4.0
Hispanic/Latino	28	3.2
White, non-Hispanic	746	87.2
More than 2 races	10	1.1
Other/prefer not to answer	8	0.9
Caregiving status (Yes) ^a	441	51.6
1 or more children living at home	346	40.4
1 or more children not living at home	40	4.7
Spouse or partner	67	7.8
Parent/parent-in-law	74	8.7
Other adult/family member	42	4.9

^aRespondents could respond Yes or No. Additional data are presented only for respondents answering Yes.

Table 2.
Job-Related Information for Study Subjects

Characteristic	Number of respondents	Percentage
Discipline ^a		
Agriculture	175	20.5
Community development	86	10.1
Family and consumer sciences	304	35.6

Natural resources	108	12.6
4-H youth development	359	42.0
Other	72	8.4
Extension region ^b		
1890	21	2.5
Northeast	121	14.2
North Central	236	27.6
Southern	310	36.3
Western	158	18.5
Years of service		
Less than 5 years	298	34.8
5-10 years	180	21.1
11-14 years	93	10.9
15-19 years	93	10.9
20-24 years	64	7.5
25-30 years	74	8.7
31 or more years	50	5.8

^aRespondents selected multiple disciplines; the numbers shown represent numbers of responses not unique respondents. ^bCooperative Extension, under the Association of Public and Land-grant Universities, is structured in five regions to ensure balanced representation.

Table 3.
Numbers of Study Subjects by Region and Discipline

Region	Agriculture	Community development	Family and consumer sciences	Natural resources	4-H	Other	Total
1890	8	2	8	6	6	3	33
Northeast	23	8	37	16	44	14	142
North Central	37	17	78	14	104	16	266
Southern	70	38	121	49	123	21	422
Western	36	21	55	23	79	17	231

Total	174	86	299	108	356	71
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Table 4.
Numbers of Study Subjects with Multiple-Discipline Responsibility

Discipline	Community			Natural		Other
	Agriculture	development	FCS	resources	4-H	
Agriculture	—	33	11	43	41	15
Community development		—	31	21	45	9
FCS			—	4	60	12
Natural resources				—	19	8
4-H					—	10

Note. Cross-tabulation provided above the diagonal except for the Other category. FCS = family and consumer sciences.

Table 5.
Mean Scores of Questionnaire Responses Across Disciplines

Construct	Range	SD	Full	4-		Community	Natural	
			sample	Agriculture	H	FCS	development	resources
Job demands	16-80	8.44	49.00	49.21	51.27	47.49	49.08	47.89
Job resources	16-80	8.87	60.37	60.10	59.01	61.26	61.51	61.08
Burnout	16-96	12.27	70.14	68.57	72.44	68.80	71.60	70.31

Note. FCS = family and consumer sciences.

Table 6.
One-Way ANOVA of Each Variable by Discipline

Variable	Discipline	SS	F	p
Job demands ^a	Agriculture	6.899	.773	.883
	Community development	4.432	.900	.678
	Family and consumer sciences	12.184	.982	.512
	Natural resources	7.108	1.207	.152
	4-H	21.260	1.684	.002**
Job resources ^b	Agriculture	6.473	.857	.739
	Community development	4.671	1.129	.261
	Family and consumer sciences	15.014	1.458	.027*

	sciences			
	Natural resources	5.228	1.043	.397
	4-H	12.434	1.115	.281
Burnout:	Agriculture	7.934	.772	.900
	Community development	4.982	.879	.733
	Family and consumer sciences	15.436	1.093	.297
	sciences			
	Natural resources	6.213	.900	.691
	4-H	20.075	1.363	.037*

Note. SS = sum of squares, F = F statistic, p = significance at .05 level.
 aDegrees of freedom (df) of one-way ANOVA of job demands = 54. bDegrees of freedom (df) of one-way ANOVA of job resources = 46. cDegrees of freedom (df) of one-way ANOVA of burnout = 62.
 *p ≤ .05. **p ≤ .01.

Table 7.
 Regression Results of Job Demands and Job Resources on Burnout by Discipline

Discipline	Variable	Unstandardized coefficients		Standardized coefficients		
		B	SE(B)	B	t	p
Full sample	Job demands	.528	.043	.392	12.413	.000
	Job resources	-.339	.045	-.238	-7.555	.000
Agriculture	Job demands	.574	.093	.419	6.162	.000
	Job resources	-.321	.088	-.247	-3.637	.000
Community development	Job demands	.755	.130	.549	5.798	.000
	Job resources	-.176	.137	-.122	-1.287	.202
FCS	Job demands	.431	.070	.331	6.118	.000
	Job resources	-.352	.074	-.257	-4.739	.000

Natural resources	Job demands	.345	.132	.253	2.623	.010
	Job resources	-.196	.128	-.147	-1.526	.130
4-H	Job demands	.706	.068	.484	10.460	.000
	Job resources	-.298	.071	-.193	-4.178	.000

Note. FCS = family and consumer sciences. B = unstandardized beta, $SE(B)$ = standard error of unstandardized beta, B = standardized beta, t = t -test statistic, p = significance at .05 level.

Before addressing the first objective, we reviewed mean scores for each construct. Table 5 displays the score range for each construct and mean scores for the full sample as well as by discipline. For job demands, 4-H and family and consumer sciences educators had the highest and lowest scores, respectively. For job resources, community development and 4-H educators had the highest and lowest scores, respectively. For burnout, educators in 4-H and agriculture had the highest and lowest scores, respectively.

We conducted a one-way ANOVA to determine whether there were any significant differences in perceived job demands, job resources, and burnout by discipline. The results, as listed in Table 6, indicate a significant difference in perceived job demands and burnout among 4-H educators as compared to other disciplines. With regard to job resources, there was a significant difference between family and consumer sciences educators and other disciplines. We also examined correlations and found that both job demands and job resources were significantly correlated with burnout.

Using linear regression, we then examined the relationship between job demands and burnout for the full sample and across disciplines. Table 7 shows the unstandardized and standardized coefficients of the effects of job demands on burnout from the regression. Job demands had a significant and positive effect on burnout for the full sample and for each discipline. Job demands had a larger effect on burnout for community development and 4-H educators. Overall, job demands was a strong and positive predictor of burnout.

Finally, we examined the relationship between job resources and burnout across disciplines. As shown in Table 7, there was a significant and negative effect of job resources on burnout across the full sample. However, unlike job demands, job resources did not predict burnout for all disciplines. We found significant negative relationships between job resources and burnout for only agriculture, family and consumer sciences, and 4-H educators, with the largest effect for family and consumer sciences educators and the smallest effect for 4-H educators. Our findings indicate that a relationship between job resources and burnout did not exist for community development and natural resources educators.

Conclusions, Discussion, and Recommendations

We found that both dimensions of job characteristics were significantly related to burnout, with job demands having a stronger, positive effect and job resources having a negative effect. These findings support those of prior research suggesting that burnout is a consequence of job demands (Fetsch & Kennington, 1997; Manton & van Es, 1985; Russell et al., 2019). Job demands was a predictor of burnout

for all Extension educators, regardless of discipline, with strongest effects for community development and 4-H educators. 4-H and community development educators appear to be at a higher risk for burnout. A possible explanation may be the unique challenges faced by 4-H educators, such as managing youth and adult volunteers, working with parents and school districts, and working nontraditional hours including evenings, weekends, holidays, spring breaks, and summer to accommodate student schedules. Likewise, community development educators may experience challenges as they seek to manage multiple projects and stakeholders to build partnerships to meet community needs. Our findings suggest a higher risk of burnout for community development educators as job demands more strongly predicted burnout for them than for those in any other discipline and there was no mitigating relationship between job resources and burnout for this group. Our findings warrant further examination of the job demands associated with both disciplines.

It was surprising to find that job resources did not predict burnout for all disciplines; specifically, there was no relationship for community development and natural resources educators. The literature has suggested that job resources can help buffer—or lessen the impact of—job demands (Bakker, Demerouti, & Sanz-Vergel, 2014). Although we did not directly investigate buffering, our findings suggest that solely striving to improve job resources to reduce burnout may not be effective for all disciplines. In fact, Extension leadership may find greater success in focusing on reducing job demands while taking a targeted programmatic approach to enhancing job resources.

Although burnout is an increasingly important workplace concern (World Health Organization, 2019), Extension leadership may be able to reduce burnout by helping educators set realistic expectations and better manage job demands while providing adequate resources to create more manageable workloads. Examples of relevant strategies include providing opportunities for educators to work from home, offering compressed work schedules, and incentivizing educators to take time off from work. Additionally, Extension leaders and administrators may consider implementing mindfulness programs, which have been shown to help educators reduce stress (Simmons, 2019) and burnout (Virgili, 2015). Leaders may consider helping educators reflect on and discuss job demands during the annual review process with the goal of finding personal and relevant solutions. Furthermore, Extension leadership should consider implementing programmatic or discipline-specific policies and strategies to address job characteristics rather than implementing such elements in one-size-fits-all fashion system-wide.

Opportunities for future study of this issue exist. Future research could include qualitative research addressing discipline-specific job demands and resources. Although each region and discipline was represented in our study, we had a small representation from the 1890 region. This was likely due to fewer educators overall in the region and the recruitment efforts we used. Researchers may want to consider replicating our study with greater 1890 representation and may need to consider different recruitment strategies to reach educators in this region. Also, given that many educators reported multiple-discipline responsibility, it may be useful to understand how such educators experience and manage job characteristics. Future research also should examine job resources and other aspects that support or influence positive affect, such as work-related well-being, job satisfaction, and engagement. It is both responsible and imperative for Extension leadership to place emphasis on supporting and developing educators as they help further secure the future of Extension.

Our study had limitations that should be considered. First, the effects of job characteristics and burnout

were the only constructs examined; therefore, only these variables and their relationships were investigated. As the finding that many educators reported multiple-discipline responsibilities was unexpected, we did not consider multiple-discipline responsibility in our analysis. In addition to considering the nature of our research design, it is important to note that Extension educators comprise a unique higher education segment; therefore, generalizing our findings to other educators is not prudent. That said, the findings reported in this article can guide Extension administrators and Extension systems to better meet the needs of their employees and, in turn, better serve citizens and communities.

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