Integrating Self-Determination and Job Demands-Resources Theory in

Predicting Mental Health Provider Burnout

Kimberly C. Dreison, M.S.[1], Dominique A. White, M.S.[1], Sarah M. Bauer, B.A.[1,2], Michelle P.

Salyers, Ph.D.[1], and Alan B. McGuire, Ph.D.[1,2]

[1]Indiana University-Purdue University, Indianapolis, [2] Roudebush VA Medical Center

Author Note

Kimberly C. Dreison, Doctoral Candidate, Department of Psychology, Indiana

University-Purdue University, Indianapolis (IUPUI); Dominique A. White, Doctoral Student,

Department of Psychology, IUPUI; Sarah M. Bauer, Research Assistant, Department of

Psychology, IUPUI and Roudebush VA Medical Center; Dr. Michelle P. Salyers, Professor,

Department of Psychology, IUPUI; Dr. Alan B. McGuire, Research Scientist, Department of

Psychology, IUPUI and Roudebush VA Medical Center

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Correspondence concerning this article should be addressed to Kimberly C. Dreison, Department of Psychology, Indiana University-Purdue University, Indianapolis, 402 N. Blackford St., LD 120A, Indianapolis, IN 46202. Phone: (317) 274-6767, Fax: (317) 274-6756, Email: kcdreher@iupui.edu

Abstract

Limited progress has been made in reducing burnout in mental health professionals. Accordingly, we identified factors that might protect against burnout and could be productive focal areas for future interventions. Guided by self-determination theory, we examined whether supervisor autonomy support, self-efficacy, and staff cohesion predict provider burnout. 358 staff from 13 agencies completed surveys. Higher levels of supervisor autonomy support, self-efficacy, and staff cohesion were predictive of lower burnout, even after accounting for job demands. Although administrators may be limited in their ability to reduce job demands, our findings suggest that increasing core job resources may be a viable alternative.

Keywords: burnout; job demands-resources; mental health providers; self-determination theory; self-efficacy; staff cohesion; supervisor autonomy support

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Job burnout is a chronic form of occupational stress commonly defined by three hallmark symptoms: emotional exhaustion (i.e., feeling fatigued and overextended), depersonalization (i.e., a detached attitude toward clients), and a reduced sense of personal accomplishment (i.e., less satisfaction with one's career successes; Maslach, Schaufeli, & Leiter, 2001). High levels of burnout are common within the mental health sector, affecting 21% to 67% of providers (Morse, Salyers, Rollins, Monroe-DeVita, & Pfahler, 2012). This is concerning because burnout is associated with a number of negative consequences. For example, mental health providers who endorse high levels of burnout are at an increased risk for mental and physical health problems, such as anxiety and depression, poorer sleep quality, impaired concentration, back pain, and cardiovascular disease (Acker, 2010; Melamed, Shirom, Toker, Berliner, & Shapira, 2006; Peterson et al., 2008). Burnout is also significantly correlated with absenteeism (Borritz et al., 2006) and intentions to leave the job (Salyers et al., 2014).

Not surprisingly, the effects of staff burnout can impact clients and organizations. Studies have consistently found provider burnout is linked to a number of unfavorable client outcomes, including diminished treatment satisfaction (Garman, Corrigan, & Morris, 2002), poorer perceived quality of care (Salyers et al., 2014), higher self-reported treatment mistakes (Quattrochi-Tubin, Jones, & Breedlove, 1982), negative attitudes toward clients (Holmqvist & Jeanneau, 2006), and an increased likelihood of involuntary hospitalization and seclusion (Happell & Koehn, 2011; Priebe et al., 2004). At the organization level, burnt-out employees can negatively affect the morale of other staff members (Maslach et al., 2001). Furthermore, absenteeism, client complaints, and employee turnover add to an organization's financial burden (Smoot & Gonzales, 1995; Waldman, Kelly, Aurora, & Smith, 2004). This is particularly

problematic for the mental health sector because resources are already stretched thin as a result of rising healthcare costs coupled with widespread funding cuts (Druss, 2006; Honberg, Diehl, Kimball, Gruttadaro, & Fitzpatrick, 2011; Honberg, Kimball, Diehl, Usher, & Fitzpatrick, 2011).

Despite these significant provider, client, and organizational impacts, the field has made limited progress in ameliorating burnout. A recent meta-analysis found that extant interventions designed to prevent or reduce burnout had only a small effect at best (Dreison, Luther, Bonfils, McGrew, Sliter, & Salyers, in press). Consequently, a primary objective of the present study was to identify key factors that might protect against burnout and could therefore be productive focal areas for future interventions. To ground our work, we drew on empirically-supported theoretical models from the broader occupational literature. Namely, we integrated the job demands-resources (JD-R) model (Bakker & Demerouti, 2007), which provides a general framework for understanding job burnout, with self-determination theory (Deci & Ryan, 1985), which identifies core human needs that are vital to psychological health (see Figure 1).

The JD-R model is a well-researched and widely used framework for understanding factors that contribute to job burnout (Alarcon, 2011; Halbesleben, 2006; Lee & Ashforth, 1996; Örtqvist & Wincent, 2006). According to the model, each condition in the workplace can be broadly classified as either a job demand or a job resource (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Job demands, such as work overload, time pressure, and client crises, tax an employee's resources and are associated with physical and psychological costs (Bakker & Demerouti, 2007). However, it is important to note that job demands are a normal, and arguably inevitable, part of work and are not necessarily problematic. Rather, it is the imbalance between demands and resources (i.e., high demands and low resources) that creates acute job stress and can lead to burnout if not corrected (Bakker & Demerouti, 2007; Meijman & Mulder, 1998).

Therefore, job resources (e.g., co-worker support, decision-making autonomy, and opportunities for growth), which foster employee engagement and provide a buffer against the energy depletion caused by job demands, are a critical piece of the puzzle (Bakker, Demerouti, & Euwema, 2005; Schaufeli & Bakker, 2004).

Although the JD-R model provides a general conceptual framework for understanding job burnout, it does not offer guidance on which specific protective factors are most critical. Consequently, many previous studies include a laundry list of predictors (Fernet, Austin, Trépanier, & Dussault, 2013). Self-determination theory helps to fill this gap by identifying three basic needs that are essential to the psychological well-being of individuals. According to self-determination theory, all people possess an intrinsic need for autonomy, competence, and relatedness (Ryan & Deci, 2000). Studies have confirmed that this premise holds true cross-culturally, in both individualist and collectivist societies (Chirkov, Ryan, Kim, & Kaplan, 2003; Deci et al., 2001).

The first core need, autonomy, refers to the experience of having freedom and choice in one's actions. In the workplace, this might involve latitude in how job tasks are completed, being rewarded for taking initiative, and feeling as though one's perspective is valued (Deci, Eghrari, Patrick, & Leone, 1994; Gagné & Deci, 2005). Past studies in samples of mental health providers have found that higher levels of workplace autonomy are negatively associated with burnout, particularly emotional exhaustion (Tummers, Janssen, Landeweerd, & Houkes, 2001; van Daalen, Willemsen, Sanders, & van Veldhoven, 2009). The second factor, competence, pertains to the need to feel capable of achieving desired outcomes (Baard, Deci, & Ryan, 2004). In other words, a strong sense of self-efficacy. In one study, social workers who reported higher perceived job competence were less likely to report high levels of stress and burnout (Acker &

Lawrence, 2009). Conversely, in another study of mental health professionals, the perceived inability to adequately perform one's job was strongly correlated with burnout (Ashtari, Farhady, & Khodaee, 2009). Finally, relatedness concerns the human need to form and maintain positive interpersonal relationships (Baumeister & Leary, 1995). A work environment with high levels of staff cohesion, evidenced by trust and cooperation amongst staff members, would help fulfill the need for relatedness. Within the mental health sector, empirical studies have consistently demonstrated the value of social support and staff cohesion in protecting against burnout (Corrigan, Holmes, & Luchins, 1995; Tummers et al., 2001; van Daalen et al., 2009). Despite these promising findings, the relationships between perceived autonomy, competence (self-efficacy), relatedness (such as staff cohesion), and burnout have yet to be simultaneously studied in a sample of mental health providers.

Given the fulfilment of core psychological needs has been shown to be inversely related to burnout, it is prudent to consider how employers can create a workplace environment that maximizes employee autonomy, competence, and relatedness and thus counters the negative effects of job demands. Research on self-determination theory in the organizational context sheds some light on this question, having shown that supervisors play a vital role with respect to whether or not these needs are met (Gagné & Deci, 2005). More specifically, studies have found that supervisor autonomy support, defined as a constellation of manager behaviors that cultivate independence, openness, trust, and confidence among their employees, leads to greater fulfilment of the three core needs (Baard et al., 2004; Deci et al., 2001; Gagné, Koestner, & Zuckerman, 2000). To our knowledge, only one published study has focused on the relationship between supervisor autonomy support and burnout, and this was in a sample of high school athletic directors (Sullivan, Lonsdale, & Taylor, 2014). Based on the results of this study, it appears that

supervisor autonomy support is a job resource that helps to reduce burnout by creating an environment in which employees' core psychological needs are satisfied.

Taken together, research on the JD-R model and self-determination theory provide evidence that job demands are positively related to burnout, whereas the satisfaction of core psychological needs serves a protective role against job burnout (Alarcon, 2011; Bakker et al., 2005; Fernet et al., 2013; Lee & Ashforth, 1996). Furthermore, supervisor autonomy support has been shown to foster the fulfillment of these core needs (Baard et al., 2004; Deci et al., 2001; Gagné et al., 2000), thus helping to reduce staff burnout (Sullivan et al., 2014). It is important to recall, however, that only a small number of studies have been performed in samples of mental health providers, and these studies were restricted in scope. That is, none of the studies simultaneously examined the core psychological needs and their relationships to burnout, nor did any of the studies examine the relationship between supervisor autonomy support and burnout.

The mental health field's limited progress in ameliorating provider burnout, coupled with the fact that a well-researched framework for understanding job burnout exists but has not yet been tested in samples of mental health providers, represents a significant knowledge gap. Accordingly, the present study begins to address this gap by testing the relative contributions that job demands and job resources make in the prediction of mental health provider burnout. Compared against other professions, studies have shown that the mental health workforce faces many unique challenges and stressors, including the stigma surrounding mental health, secondary exposure to client trauma, client suicides, and high productivity demands coupled with low pay (Chemtob, Hamada, Bauer, Kinney, 1998; Rossler, 2012). Moreover, relative to other private sector industries, the mental health sector has a higher incidence of workplace violence (Privitera, Weisman, Cerulli, Tu, & Groman, 2005). Because many of these unique challenges

and stressors are not easily ameliorated, job resources such as supervisor autonomy support, self-efficacy, and staff cohesion may play an even more important role in the mental health field compared to other sectors. For example, studies have found that following client suicide, a strong network of support from one's colleagues is a particularly important coping resource (Dallender, Nolan, Soares, Thomen, & Arnetz, 1999). Accordingly, we hypothesized that job resources (i.e., supervisor autonomy support, self-efficacy, and staff cohesion) would be predictive of lower levels of burnout, even after accounting for the effects of job demands and any significant background variables.

Method

Participants/Procedure

This study expanded on a sample from a previous study about Illness Management and Recovery (IMR) competence (McGuire, Bartholomew, et al., in press; McGuire, White, et al., in press). In the IMR competence study, participants were recruited from a convenience sample of mental health agencies engaged in IMR services. The parent study focused on clinical teams that included IMR providers. For the current study, agencies were invited to expand participation to other staff members, regardless of participation in the IMR competence study. The total sample for the current study comprises 358 staff members, representing 55 clinical teams from 13 mental health agencies in Indiana, New Jersey, and New York.

Data collection occurred from October 2013 through July 2014. Key personnel at the mental health agencies were contacted via telephone or email by research staff. Once mental health agency approval was received, the key personnel were given a choice between online or paper versions of the surveys and were provided a description of the study to distribute to clinicians within their agencies. For online participation, SurveyMonkey.com links were emailed

to key personnel at each agency to disperse to clinical team members via email, and the survey remained open for a minimum of four weeks. At agencies with limited computer access, paper surveys were provided by research personnel who returned after four weeks to collect completed measures. Approximately half the participants completed the survey electronically (n = 166; 46.4%), and the remainder completed a paper version (n = 192; 53.6%). The overall response rate of eligible participants was 61.1%. All participants were given the option to enter a drawing for one of 12, $50 gift cards or one tablet computer. Procedures were approved by the Institutional Review Boards at [blinded for review] University and at [blinded for review].

Measures

In line with the JD-R model and self-determination theory, we were interested in assessing job demands as well as job resources (i.e., supervisor autonomy support, self-efficacy, and staff cohesion). Job burnout was also measured (see Figure 1 for a visual representation of these key constructs). In addition, demographic and participant background information (e.g., age, education, and discipline) was collected. The measures are described in detail below.

Job demands. Job demands were measured using the four-item Organizational Readiness for Change Short Form (ORC-D4) stress subscale (Lehman, Greener, Rowan-Szal, & Flynn, 2012; TCU Institute of Behavioral Research, 2014). These items assess several aspects of job demands, including work overload, pressure, high stress and strain, and frustration (e.g., "You are under too many pressures to do your job effectively"). Participants respond to these items using a 5-point Likert scale ranging from 1 ("disagree strongly") to 5 ("agree strongly"). A mean score was computed for this scale, and in our sample, the internal consistency was high (Cronbach's α = .81).

Supervisor autonomy support. Supervisor autonomy support was assessed with the Work Climate Questionnaire (WCQ; Rochester, 2014). This measure, which was adapted from the Health Care Climate Questionnaire, assesses employees' perceptions of autonomy support from their primary supervisor (Baard et al., 2004). Employees use a 7-point Likert scale that ranges from 1 ("strongly disagree") to 7 ("strongly agree") to respond to 15 statements about their supervisor (e.g., "My manager listens to how I would like to do things"). In our sample, Cronbach's α = .97.

Self-efficacy. Self-efficacy was measured using the five-item ORC-D4 self-efficacy subscale (Lehman et al., 2012; TCU Institute of Behavioral Research, 2014). These self-report items tap into perceived competence (e.g., "You are effective and confident in doing your job") via a 5-point Likert scale that ranges from 1 ("disagree strongly") to 5 ("agree strongly"). A mean score was computed for this scale, and in our sample, Cronbach's α = .73.

Staff cohesion. Staff cohesion was measured using the six-item ORC-D4 staff cohesion subscale (Lehman et al., 2012; TCU Institute of Behavioral Research, 2014). These items measure co-worker support and relatedness (e.g., "Mutual trust and cooperation among staff in your program are strong"). Participants respond to these items using a 5-point Likert scale that ranges from 1 ("disagree strongly") to 5 ("agree strongly"). A mean score was computed for this scale. In our sample, the internal consistency was good (Cronbach's α = .87).

Job burnout. Burnout was assessed using the Maslach Burnout Inventory–Human Services Survey (MBI-HSS; Maslach, Jackson, & Leiter, 1996), which comprises 22 items across three subscales: emotional exhaustion (9 items), depersonalization (5 items), and personal accomplishment (8 items). Items consist of statements (e.g., "I feel burned out from my work"), and respondents use a 7-point Likert scale, ranging from "never" to "every day," to indicate how

often each statement is true for them. Mean scores were calculated for each subscale. Reliability

for the subscales has been shown to be moderate, as reported in a recent meta-analysis

(emotional exhaustion, $\alpha = 0.88$; depersonalization, $\alpha = 0.71$; personal accomplishment, $\alpha =$

0.78; Aguayo, Vargas, de la Fuente, & Lozano, 2011). In our sample, Cronbach's alpha

coefficients were .93 (emotional exhaustion), .77 (depersonalization), and .88 (personal

accomplishment).

Data Analysis

All data analyses were conducted using the Statistical Package for the Social Sciences,

Version 22 (SPSS 22). Descriptive statistics were generated for the background, predictor, and

outcome variables. Background variables that were not measured on a continuous scale were

dichotomized and dummy coded. Zero-order correlation matrixes (using point-biserial

correlations for dichotomous variables) between background variables and the three burnout

dimensions were computed, and background variables that were significantly correlated with

burnout ($p < .05$) were retained in subsequent regression analyses.

The hypotheses were tested using hierarchical multiple regression for each burnout

dimension, with relevant background variables entered in step one, job demands entered in step

two, and supervisor autonomy support, self-efficacy, and staff cohesion entered in step three. To

maximize power, the method of pairwise deletion was utilized; thus, the number of participants

varies across analyses. The self-efficacy and depersonalization subscales were skewed, so we

examined models with logarithmic transformations of these variables. Because results were not

significantly affected by these transformations, results using the original scores are reported for

ease of interpretation.

Results

Participant Characteristics

Background characteristics are presented in Table 1. The majority of participants were women, held a bachelor's degree or higher, and had been in the field for an average of 9.8 years (SD = 7.63). Psychology was the most frequently specified discipline, followed by social work, counseling, nursing, addictions, business, and psychiatry.

Preliminary Analyses

Descriptive statistics for the measures, including means, standard deviations, zero-order correlations, and reliabilities, are presented in Table 2. Preliminary analyses examining zero-order correlations between background variables and the three dimensions of burnout revealed that psychologists had significantly higher emotional exhaustion ($r = .24$ $p < .001$); education was significantly related to both lower depersonalization ($r = -.13$, $p = .024$) and lower personal accomplishment ($r = -.26$, $p < .001$); and gender was related to personal accomplishment, with men reporting significantly higher levels ($r = .27$, $p < .001$). These background variables were entered in the first step of relevant regression analyses. The remainder of the background variables (i.e., age and length of time in the field) were not significantly correlated with any of the burnout dimensions and were excluded from further analysis.

Hierarchical Regression Analyses

A summary of the results from the series of regression analyses is presented in Table 3. Emotional exhaustion was regressed onto discipline in step one, job demands in step two, and supervisor autonomy support, self-efficacy, and staff cohesion in step three. After controlling for discipline and job demands, supervisor autonomy support and staff cohesion significantly predicted lower emotional exhaustion ($\beta = -.17$, $p = .007$ and $\beta = -.17$, $p = .009$, respectively) and

accounted for a unique proportion of the variance (F_{change} (3, 240) = 9.03, p < .001). Self-efficacy was not a significant predictor. Overall, predictors accounted for 33% of the variance in emotional exhaustion.

In the second analysis, depersonalization was regressed onto education in step one, and job demands were added to the model in step two. Adding supervisor autonomy support, self-efficacy, and staff cohesion in step three produced a significant change in the accounted for variance (F_{change} (3, 270) = 5.85, p < .001; R^2 = .12). However, the individual predictors only showed trend-level significance.

In the final analysis, personal accomplishment was regressed onto gender and education in step one, job demands in step two, and supervisor autonomy support, self-efficacy, and staff cohesion in step three. After controlling for gender, education, and job demands, self-efficacy significantly predicted higher personal accomplishment (β = .24, p < .001). Supervisor autonomy support and staff cohesion were not significant. Combined, the predictors accounted for 27% of the variance in personal accomplishment (F_{change} (3, 247) = 5.82, p = .001).

Discussion

The present study makes several novel contributions to the literature. First, using an integrative framework comprised of the JD-R model and self-determination theory, we were able to account for a significant proportion of the variability in mental health provider job burnout (i.e., 33% of the variability in emotional exhaustion, 12% of the variability in depersonalization, and 27% of the variability in personal accomplishment). Additionally, this was the first study in a sample of mental health providers to simultaneously examine the relative contributions that core psychological needs, as identified by self-determination theory, make to the prediction of

burnout. Lastly, to our knowledge, this was the first time that the relationship between supervisor autonomy support and job burnout was studied in a sample of mental health providers.

In line with our predictions, job resources (i.e., supervisor autonomy support, self-efficacy, and staff cohesion) were negatively correlated with emotional exhaustion and depersonalization. Additionally, all three job resource variables were positively correlated with personal accomplishment, although only self-efficacy was statistically significant. Overall, these findings are congruent with previous studies that have shown significant negative associations between job resources and burnout (Alarcon, 2011; Halbesleben, 2006; Lee & Ashforth, 1996).

In testing the ability of job resources to protect against burnout–after accounting for the effects of job demands and significant background variables–we found that our hypotheses were partially supported. Namely, higher levels of perceived supervisor autonomy support and staff cohesion were predictive of lower levels of emotional exhaustion, and higher levels of self-efficacy were predictive of higher personal accomplishment. Contrary to our hypotheses, after accounting for job demands and background variables, self-efficacy was not a significant predictor of emotional exhaustion, none of the job resources were significant predictors of depersonalization, and supervisor autonomy support and staff cohesion were not significant predictors of personal accomplishment. These results suggest that job resources are differentially predictive of the three dimensions of burnout. Differential relationships are in line with the findings from Fernet et al. (2013), who tested the JD-R model and self-determination theory in a sample of school board employees. However, it is notable that the strongest protective factors for each dimension of burnout differed between the present study and the study by Fernet et al. (2013). Specifically, only autonomy (as a predictor of emotional exhaustion) and self-efficacy/perceived competence (as a predictor of personal accomplishment) were congruent

across studies. Thus, future studies are needed to more clearly determine which job resources consistently serve as the strongest protective factors against each of the three dimensions of burnout, and the extent to which this varies across different employment sectors.

Policy and Practice Implications

The fact that job demands are an unavoidable aspect of the workplace is particularly salient in the mental health sector, where high productivity requirements, large caseloads, and emotionally challenging work is the rule rather than the exception (Honberg, Kimball, et al., 2011; Morse et al., 2012). In light of this reality, it is encouraging to find evidence that supervisor autonomy support, self-efficacy, and staff cohesion might have the power to reduce job burnout, even after taking into account the impact of job demands. Although program administrators are often limited in their ability to reduce job demands, our findings suggest that increasing these core job resources may be a fruitful alternative. For example, leadership training programs could focus on increasing levels of supervisor autonomy support. Previous research suggests that leadership training programs can be a cost-effective way to positively impact the work environment (Dvir, Eden, Avolio, & Shamir, 2002; Green, Miller, & Aarons, 2013).

Our findings also suggest that interventions to improve self-efficacy may be another way to reduce some dimensions of burnout. For instance, supervisors might increase feelings of self-efficacy amongst their staff by ensuring that providers are assigned appropriately challenging tasks that match their abilities (Baard et al., 2004). Offering continuing education opportunities to improve clinical skills is another possible way to increase feelings of self-efficacy and ultimately help reduce burnout. Indeed, a meta-analysis on burnout interventions in mental health providers found that job training and education programs were the most effective type of intervention (Dreison et al., in press).

With respect to staff cohesion, employers might consider facilitating the formation of co-worker support groups. These groups may be particularly beneficial for providers who serve high needs clients (van Daalen et al., 2009). In fact, therapeutic models such as dialectical behavior therapy (DBT), which have a group supervision component, have been shown to reduce provider burnout (Carmel, Fruzzetti, & Rose, 2014; Little, 2000). Alternatively, staff workshops that teach conflict resolution skills and offer ideas for expanding social support in the workplace may increase staff cohesion and help to reduce burnout. For instance, a pilot study of BREATHE, a burnout reduction workshop that includes modules on social relationships and support, found a significant reduction in both emotional exhaustion and depersonalization (Salyers et al., 2011).

Although the present findings are promising and make several new contributions to the literature, some limitations should be noted. First, as is the case with all cross-sectional studies, we cannot assume causality between the variables. This includes being unable to rule out the possibility of a spurious relationship or to ascertain the directionality of relationships. Therefore, longitudinal studies are needed to build upon the current study and determine whether there is a causal relationship between core job resources and burnout. That said, the fact that our work was grounded in preexisting models that were tested in other populations gives us greater confidence that the expected causal relationships will bear out in future longitudinal studies (Alarcon, 2011; Chirkov et al., 2003; Deci et al., 2001; Halbesleben, 2006; Lee & Ashforth, 1996; Örtqvist & Wincent, 2006). Additionally, several previous studies have demonstrated that job demands and resources are predictors of burnout (as opposed to outcomes of burnout; Schaufeli & Enzmann, 1998), which supports the contention that supervisor autonomy support, staff cohesion, and self-efficacy protect against burnout rather than burnout attenuating these factors. A second limitation pertains to common method variance. That is, our data was gathered using self-report measures,

and all of the surveys were completed by staff members. Consequently, the strength of the correlations may be artificially inflated. This limitation is not unique to the present study, as common method bias is prevalent within behavioral science research (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, the field would benefit from future research that employs a wider variety of measures and informants. Lastly, due to concerns about anonymity, we were unable to collect information on race and ethnicity. Although this limits what is known about the generalizability of our results, past research has demonstrated that the core needs identified by self-determination theory, and measured in the present study, are widely applicable (Chirkov et al., 2003; Deci et al., 2001).

Despite these limitations, this study serves to advance our understanding of the associations between supervisor autonomy support, self-efficacy, and staff cohesion and mental health provider burnout. Consistent with past studies conducted in other employment sectors, the fulfillment of these core psychological needs predicted reduced burnout even after taking into account the negative impact of job demands (Bakker et al., 2005; Fernet et al., 2013; Sullivan et al., 2014). In light of these findings, future research on mental health provider burnout may benefit from utilizing a combined JD-R and self-determination framework and developing interventions that create a workplace environment that cultivates the satisfaction of core psychological needs.

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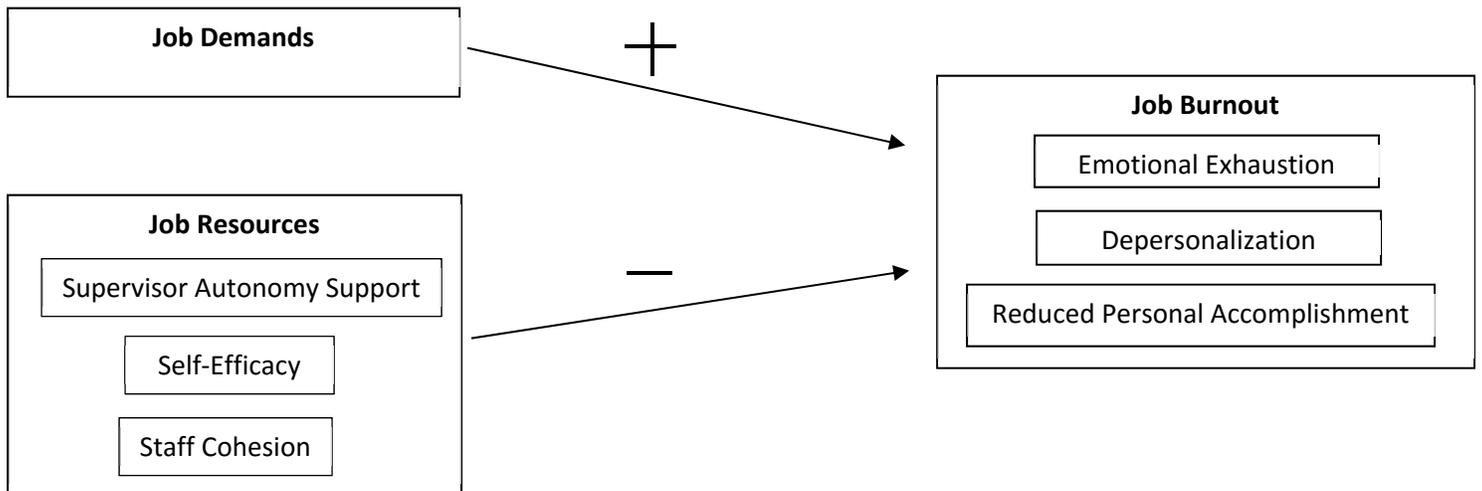
Figure 1. Theoretical model integrating the JD-R model with self-determination theory to predict mental health provider burnout

Table 1

Participant Characteristics

Characteristics	Frequency	Percent*
Gender		
Female	182	50.8%
Male	106	29.6%
Prefer not to answer	70	19.6%
Age		
20-30	73	20.4%
31-40	94	26.3%
41-50	76	21.2%
51-60	43	12.0%
61-70	21	5.9%
Did not respond	51	14.2%
Education		
High School	64	17.9%
Some College	9	2.5%
Associates	45	12.6%
Professional Certificate	6	1.7%
Bachelor's	114	31.8%
Master's	71	19.8%
Doctoral	2	0.6%
Other	4	1.1%
Did not respond	43	12.0%
Discipline		
Psychology	85	23.7%
Social Work	71	19.8%
Counseling	26	7.3%
Nursing	11	3.1%
Addictions	5	1.4%
Business	5	1.4%
Psychiatry	3	0.8%
Other	55	15.4%
More than one	14	3.9%
Did not respond	83	23.2%

*Out of 358 participants

Table 2. *Means, Standard Deviations, Sample Sizes, Internal Consistencies, and Correlations between the Measures*

Measure	M	SD	N	1	2	3	4	5	6	7
1. Job Demands	3.08	.96	319	(.81)						
2. Supervisor AS	5.49	1.34	327	-.32***	(.97)					
3. Self-Efficacy	4.05	.51	298	-.14*	.31***	(.73)				
4. Staff Cohesion	3.64	.83	326	-.36***	.52***	.32***	(.87)			
5. Emotional Exhaustion	1.30	1.27	302	.48***	-.37***	-.18**	-.38***	(.93)		
6. Depersonalization	.69	1.01	303	.19***	-.26***	-.21***	-.27***	.62***	(.77)	
7. Personal Accomplishment	4.03	1.13	288	-.40***	.11	.24***	.09	-.00	.12*	(.88)

Note. Cronbach's alphas are on the diagonal. AS = Autonomy Supportiveness.

p < .05. **p* < .01. *** *p* ≤ .001. (Two-tailed)

Table 3

Summary of Hierarchical Regression Analyses for Each Burnout Dimension

Step	Model	β	R^2	ΔF
Emotional Exhaustion				
1	Discipline[1]	-.24***	.06	14.83***
2	Discipline	-.14*	.25	62.10***
	Job Demands	.45***		
3	Discipline	.16**	.33	9.03***
	Job Demands	.33***		
	Supervisor AS	-.17**		
	Efficacy	.00		
	Staff Cohesion	-.17**		
Depersonalization				
1	Education[2]	-.13*	.02	4.95*
2	Education	-.18**	.07	14.48***
	Job Demands	.23***		
3	Education	-.11	.12	5.85***
	Job Demands	.12		
	Supervisor AS	-.12		
	Efficacy	-.11		
	Staff Cohesion	-.11		
Personal Accomplishment				
1	Gender[3]	.22***	.11	15.76***
	Education	-.20***		
2	Gender	.17**	.21	32.41***
	Education	-.14*		
	Job Demands	-.33***		
3	Gender	.17**	.27	5.82***
	Education	-.15*		
	Job Demands	-.33***		
	Supervisor AS	-.01		
	Efficacy	.24***		
	Staff Cohesion	-.09		

[1]Psychology (1) versus non-psychology (0). [2]Bachelor's or higher (1) versus less than bachelor's (0). [3]Men (1) versus women (0).

AS = Autonomy Supportiveness. n = 275-327.

*$p \le .05$. **$p \le .01$. ***$p \le .001$. (Two-tailed)