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UNPACKING THE BURNOUT PHENOMENON:
UNDERSTANDING DAILY INFLUENCES ON BURNOUT

A Thesis
Presented to
The Faculty in the Department of Psychological Sciences
Western Kentucky University
Bowling Green, Kentucky

In Partial Fulfillment
Of the Requirements for the Degree
Master of Science

By
Emily K. Houk

May 2020

UNPACKING THE BURNOUT PHENOMENON:
UNDERSTANDING DAILY INFLUENCES ON BURNOUT

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UNDERSTANDING DAILY INFLUENCES ON BURNOUT

Emily Houk

May 2020

35 Pages

Directed by Katrina A. Burch, Elizabeth L. Shoenfelt, and Reagan D. Brown

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Burnout is a work-related phenomenon that is not bound to the work domain. As such, experiencing burnout can be particularly detrimental for employees because effects of burnout can spill over into other life domains. The present study serves to examine the burnout phenomenon; specifically, I examined the direct effect of daily job stress on perceptions of burnout, as well as explored daily work-related affective rumination as a mediating effect in the relationship between daily job stress and burnout. Work-related affective rumination is a mechanism that potentially helps to explain how buildup of daily job stress influences the development of burnout. Data were collected through daily diary surveys administered over 10 working days with a follow-up survey administered at a later time from full-time employees ($N = 106$) who worked outside the home. The results indicate that there is a positive relationship between daily job stress and perceptions of burnout. In addition, there was a full mediation of daily work-related affective rumination on daily job stress and perceptions of burnout over time. Understanding this relationship is important for organizations, as they should seek to foster a positive culture that encourages employees to develop coping skills that can aid in reducing stress and mitigate the development of burnout. Implications for research and practice are discussed.

Introduction

Burnout is, and remains, an important area of study due to the significant implications it has for employees as well as their organizations. Burnout is both an individual as well as an organizational phenomenon, as experiencing burnout may result in increased absenteeism, reduced job performance, and other negative physical and psychological health outcomes for individuals (e.g., lower self-esteem, negative attitudes; Maslach, Jackson, Leiter, Schaufeli, & Schwab, 1986). Burnout also may be directly-, or tangentially-, related to issues such as metabolic syndrome, depression, cardiovascular disease, muscle tension, chronic fatigue, and gastrointestinal problems (Beehr & Newman, 1978; Leiter & Maslach, 1997). Given the potential detrimental impacts that burnout may have on employees as well as their organizations; it is incumbent upon organizations to prevent and/or mitigate burnout. One method to achieve the aforementioned is to seek to understand work-related factors that contribute to the experience of burnout.

One well-established, work-related factor that contributes to burnout is job stress (e.g., Golembiewski & Kim, 1990; Zhong, You, Gan, Zhang, Lu, & Wang, 2009). However, some employees may experience stress at work and not develop burnout, while others may experience the same perceived level of stress at work and subsequently develop burnout. As such, there may be potential mediators or boundary conditions that influence the daily job stress and perceptions of burnout relationship. Daily work-related affective rumination may be a potential mediator in the aforementioned relationship. Work-related affective rumination is characterized by negative, conscious, and persistent

thoughts revolving around work-related issues that occurs outside of the work environment (Martin & Tesser, 1996).

Job stress and work-related rumination may fluctuate from day to day, while burnout is a condition that results from chronic exposure to work stress, and thus may be more stable. Researchers have called for the need to examine the day-level processes that influence the development of burnout; however, very little research has sought to examine these processes. Therefore, I examined the day-level processes that are associated with burnout. Specifically, I investigated the role of daily perceived job stress and daily work-related affective rumination about work as influences on burnout. The conceptual model guiding this research is presented in Figure 1.

Understanding Burnout

Burnout is conceptualized as a chronic strain outcome resulting from stress over time. Burnout is comprised of three components: emotional exhaustion, depersonalization, and losing a sense of accomplishment in the workplace (Maslach, Jackson, & Leiter, 1996). Emotional exhaustion is defined as feeling worn out by work demands and feeling too spread out in work tasks (Nagar, 2012). These feelings of exhaustion can lead to irritation or dissatisfaction in employees because they are unable to complete tasks as well as they used to. Depersonalization is defined as being detached from work and having a more hostile attitude towards clients and colleagues (Nagar, 2012). Nagar found that depersonalization influences employees' perceptions of alienation at work, and also may influence employees' feelings of meaningfulness for completing tasks. A lost sense of accomplishment is characterized by an employee feeling that he or she is no longer effectively contributing to the organization, or is not

completing his or her job tasks and responsibilities (Maslach et al., 1996). Research supports that when employees lose a sense of accomplishment, they begin to feel incompetent and develop poor self-esteem (Nagar, 2012). This is important because organizational outcomes will be negatively impacted when employees are experiencing these burnout components, and time, money, and resources will be wasted in attempting to mitigate these issues once they have occurred (Kompier & Cooper, 1999).

Moreover, the components that comprise burnout may be differentially related to outcomes associated with burnout. For example, research supports that personal health-related issues are more strongly associated with emotional exhaustion compared to depersonalization and loss of accomplishment (Schaufeli, Taris, & Van Rhenen, 2008). However, it is important to examine effects of burnout as a whole in order to understand the chronic issues that can result, as prior research has supported (Maslach et al., 1986). Although burnout consists of three constructs, there are advantages to examining burnout as a unidimensional construct. First, it allows for researchers to have a parsimonious design when they are focused on burnout as one construct in individuals. A single construct also can allow for results to be more clarifying, especially if the researchers are interested in simply differentiating between “healthy” employees, and those who are experiencing burnout (Brenninkmeijer & VanYperen, 2003).

Burnout can lead to outcomes that are experienced by both the individual, as well as the organization. However, individual employee burnout is not experienced in a vacuum, as individual outcomes have organizational implications. For example, there may be an increase in the number of sick days that employees take due to feeling burned out (Schaufeli & Salanova, 2014). Burnout also influences the quality of employees’

problem-solving skills due to lower self-esteem (Bakker, Demerouti, & Verbeke, 2004). Employees also may feel less confident in their decision-making abilities as a result of burnout. Clearly, understanding what precedes employee burnout is an organization-wide issue.

Job Stress as an Antecedent of Burnout

The stressor-stress-strain framework suggests that stressors produce stress, which then leads to psychological, physical, and behavioral strain outcomes. Stressors can be both internal to the individual and external in the environment. Examples of job stressors include role ambiguity, role conflict, interpersonal conflict, situational constraints, noise, lighting, heat, and time pressure (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Fox, Spector, & Miles, 2001). Experiencing the aforementioned job stressors leads employees to experience job stress under the stressor-stress-strain model. Job stress refers to the discomfort one experiences when the relationship between the person and the environment is evaluated as taxing and/or exceeding personal resources (Jex & Beehr, 1991; Lazarus & Folkman, 1984). Job stress is often conceptualized as a subjective, rather than an objective, experience, and as such, it is examined through a combination of individual differences and environmental factors (Parker & DeCotiis, 1983).

There are many health and well-being implications for experiencing job stress at work. These include lower self-efficacy and maladaptive coping mechanisms. Some maladaptive ways individuals deal with stress include smoking, drinking, and over-eating. These methods of coping are more likely to lead to heart disease and lung disease, among other negative health outcomes (Beehr & Newman, 1978). Experiencing daily job stress also has negative effects on work outcomes, including absenteeism, turnover, and

dissatisfaction (Beehr & Newman, 1978). Additionally, research has supported that daily job stress significantly predicts burnout in employees, which may mediate the relationship between job stress and the aforementioned negative health and work outcomes (Golembiewski & Kim, 1990; Zhong et al., 2009).

Moreover, researchers suggest that the daily experience of job stressors and stress lends itself to the development of burnout (Ilies, Johnson, Judge, & Keeney, 2011; Sonnentag, 2005). According to the cybernetic model of stress, short-term dynamics (i.e., daily job stress) can influence longer-term outcomes (i.e., burnout) in the workplace (Frone & McFarlin, 1989). Therefore, I hypothesize:

Hypothesis 1: Daily job stress is positively associated with perceptions of burnout.

Work-Related Affective Rumination as an Explanatory Mechanism

One mechanism through which daily job stress may influence burnout is daily work-related affective rumination. Rumination involves negative, perseverative thinking that can get in the way of reaching one's goals (Martin & Tesser, 1996). Work-related affective rumination is an emotion-focused, cognitive state that occurs when individuals have persistent, negative thoughts about work, even when they are not at work (Cropley & Zijlstra, 2011). This rumination can be influenced by many different factors, including demanding workloads, upcoming deadlines, projects that require problem-solving, or relationship issues with coworkers (Querstret & Cropley, 2012).

Daily work-related rumination is important to study within the context of the work domain because it can make it difficult to disengage from work and be able to recover in order to replenish one's energetic resources. Scholars have theorized that

rumination occurs as a reaction to experiencing stressful situations (Nolen-Hoeksema & Morrow, 1991; Robinson & Alloy, 2003). Rumination can occur before, during, or after work, because it is experienced as a cognitive activity. If one is experiencing job stress, they may be more likely to ruminate about their negative work experiences. As such, I hypothesize:

Hypothesis 2: Daily job stress will be positively associated with daily work-related affective rumination.

Daily work-related affective rumination is an important construct to study because it has the potential to prevent individuals from disengaging from their work domain, and continue negative thoughts in their home domain. Over time, these daily, negative dynamic experiences (i.e., daily job stress, daily work-related affective rumination) may subsequently contribute to the development of burnout. The notion that daily work-related affective rumination influences chronic strain outcomes over time (i.e., burnout), relates to the allostatic load model, in the sense that psychological states, such as work-related rumination, contribute to stress reactions (i.e., psychological, physical, and behavioral strain outcomes; McEwen & Stellar, 1993). Although the relationship between daily work-related affective rumination and burnout has yet to be examined in the literature, empirical evidence suggests that those who are unable to detach from work experience higher levels of emotional exhaustion, a component of burnout (Donahue, Forest, Vallerand, Lemyre, Crevier-Braud, & Bergeron, 2012; Sonnentag, Binnewies, & Mojza, 2010).

What's more, work-related affective rumination is associated with many negative psychological and health outcomes, including: increased risk for cardiovascular disease

(Kivimaki, Vertanen, Elovainio, Kouvonen, Vaananen, & Vahtera, 2006), negative mood (Pravettoni, Cropley, Leotta, & Bagnara, 2007), salivary cortisol secretions (Rydstedt, Cropley, Devereux, & Michalianou, 2009), and poor sleep or sleep disturbances (Åkerstedt, Nordin, Alfredsson, Westerholm, & Kecklund, 2012). This suggests that the inability to control negative thoughts about work while outside of work has serious consequences that organizations should take into consideration. Furthermore, engaging in work-related affective rumination can have effects on productivity in the workplace, including diminished reaction times, decision-making abilities, and information processing (Lyznicki, Doege, Davis, & Williams, 1998).

Taken together, evidence suggests that work-related rumination is associated with components of (i.e., emotional exhaustion) and markers for (i.e., fatigue, negative mood) burnout; therefore, it is logical to expect that work-related rumination would be associated with burnout. Indeed, as a cognitive process that inhibits the ability to detach from work due to perseverative thinking, daily work-related affective rumination may be a key driver of the development of burnout. As such, I hypothesize the following:

Hypothesis 3: Daily work-related affective rumination will be positively associated with perceptions of burnout.

What's more, previous research suggests that affective work-related rumination mediates the relationship between job stressors, such as a demanding workload, role ambiguity, or lack of autonomy, and burnout (Etzion, Eden, & Lapidot, 1998; Vandevala, Pavey, Chelidoni, Chang, Creagh-Brown, & Cox, 2017). Therefore, there is evidence to suggest that daily work-related affective rumination should mediate the relationship

between daily job stress and perceptions of burnout. As such, I hypothesize the following:

Hypothesis 4: Daily work-related affective rumination will mediate the relationship between daily job stress and perceptions of burnout.

Work-related Positive Rumination. Rumination about work may be negative, however, it is also posited to have positive components. Problem-solving pondering, or positive work-related rumination, is the continuation of thoughts about positive work experiences or thoughts about how to resolve issues or complete tasks at work; continuing the exposure to positive experiences even after work (Querstret & Cropley, 2012). Importantly, problem-solving pondering does not include the emotional component of rumination thought to drive affective-based rumination about work. Once problem-solving pondering occurs, the continued positive rumination, or thinking about these resolved issues, leads to an increase in positive affect, well-being, and self-efficacy (Seo, Barrett, & Bartunek, 2004; Stajkovic & Luthans, 1998). However, the influence of problem-solving pondering on perceptions of burnout is not well understood. It could be that engaging in positive, problem-focused rumination serves to diminish the development of burnout. However, as a cognitive activity that prevents detachment from work, albeit positive, problem-focused rumination, may, like daily work-related affective rumination, exhibit positive associations with the development of burnout. Therefore, I posit the following:

Research Question 1: What is the relationship between problem-solving pondering and perceptions of burnout?

Present Study

The present study explores the relationship between daily job stress, daily work-related affective rumination, and perceptions of burnout over time utilizing daily diary methodology. Specifically, I will examine the direct effect of daily job stress on burnout, as well as the indirect of daily job stress on burnout through the mediating mechanism of daily work-related affective rumination. Furthermore, I will explore the relationship between daily problem-solving pondering (i.e., positive work-related rumination) and burnout.

Method

Participants

This thesis utilizes data collected previously for a different study (Burch & Barnes-Farrell, 2019). The data being used in this study are from Amazon's Mechanical Turk (MTurk). Pulling from an initial sample of 511 individuals who completed a screening survey, 189 participants were asked to participate in a daily diary study related to experiences regarding work and commuting. Criteria for the selected participants included those who were U.S. citizens, had a 95% MTurk approval rate (an indicator of effortful responding by MTurk), and had previously completed at least 50 tasks. Additionally, only respondents who worked full-time (at least 35 hours per week) were included. There were two validation questions in the screening survey to ensure participants were responding thoughtfully.

There were 140 participants who completed the baseline survey, out of the 189 it was sent to (response rate = 74%). There were 131 participants out of the 140 who completed at least seven daily surveys (response rate = 93.6%), and 95 participants who completed the surveys for all 10 days (response rate = 67.9%). There were 26 participants

from the 131 who completed at least seven daily surveys who were excluded from analyses for one of three reasons. There were three participants who were excluded from the analyses because they responded in the baseline survey that they worked an average of fewer than 35 hours per week. Two participants were excluded because in the baseline survey they responded that on average, they work four days per week, instead of five. Finally, there were 21 participants excluded for responding that they do not work a regular day-time shift. Therefore, 106 participants of the 140 who completed the baseline survey, were used in the analyses (76%).

In the sample, 82% of participants were Caucasian, and 62% were male. In addition, 65% of the participants indicated they had at least a four-year degree. The mean age of participants was 34.6, and they were employed in a variety of occupations, including professional (23.6%), management/business/financial (24.5%), and administrative (16%). The data were collected through baseline, follow-up, and daily diaries. Data collection took place over the course of approximately one-and-a-half months. Daily diaries were filled out over the course of two weeks, in which participants were asked to complete the following scales based on their experiences each day.

Measures

Each measure used was initially developed for cross-sectional research and is each based on validated Likert-type response scales. These scales were adapted in order to be used in a daily diary methodology, and the new response format used a binary yes/no response scale, unless noted otherwise. The measures were piloted in order to standardize the response options and number of items.

Daily Survey.

Work-related Affective Rumination. The Work-Related Rumination Scale (WRRQ) consists of three subscales that measure work-related affective rumination, problem-solving pondering, and detachment (Cropley, Michalianou, Pravettoni, & Millward, 2012). However, only the work-related affective rumination subscale were used for the present study. The subscale is measured by five items; however, after piloting the scale, one item from the subscale was dropped, leaving four items in the work-related affective rumination subscale. Items on this scale all included the stem “today.” An example of a work-related affective rumination subscale item is, “Today, I became tense when I thought about work-related issues.” Reliability was assessed through the KR-20. Reliabilities for work-related affective rumination ranged from .83 to .91 throughout the data collection.

Problem-solving Pondering. The problem-solving pondering subscale of the WRRQ (Cropley et al., 2012) was used to assess positive work-related rumination. The problem-solving pondering subscale of the WRRQ consists of five items, of which four items were used. During piloting of the measures for the daily diary survey, one item was dropped from the problem-solving pondering subscale (the item with the lowest factor loading) to streamline response times. Participants were asked to respond to statements, which all included the stem “today.” An example item for the problem-solving pondering subscale is, “Today, I thought of how I can improve my work-related performance.” Participants responded to this questionnaire each day after work over the course of two weeks. Reliabilities for problem-solving pondering ranged from .57 to .82 throughout the data collection.

Job Stress. Job stress was measured by nine different statements from the Job Stress in General Scale (Stanton, Balzer, Smith, Parra, & Ironson, 2001). These statements, which all included the stem “today,” such as “Today, my work was demanding,” were answered via a yes/no response format. Reliability was assessed via the KR-20. Reliabilities for job stress ranged from .87 - .91 throughout the data collection.

Baseline and Follow-up Surveys.

The baseline and follow-up surveys included information necessary to fully describe the sample (e.g., participant personal and job demographics), as well as constructs that are considered more stable (e.g., personality and burnout). For the purposes of my research, I utilized the measure of burnout that participants responded to via the follow-up survey, as well as examined potential control variables using the participant personal and job demographics reported on the baseline survey.

Burnout. Burnout was assessed using 15 items from the Oldenburg Burnout Inventory (Demerouti et al., 2001). Participants were asked to consider their work experiences over the past month when responding to this measure. An example item is, “At work, I often feel emotionally drained.” Participants only responded to this measure one time, two weeks following the end of daily diary data collection. This measure exhibited good internal reliability ($\alpha = .93$).

Demographics. Demographics included: age, gender, marital status, job title, supervisory status, tenure in organization, number of children, primary childcare/dependent-care responsibilities, highest level of education completed,

opportunity for flextime, opportunity for telework, and job status (e.g., full-time). These variables will be examined as potential controls in my study.

Procedure

Participants were recruited through Amazon's MTurk. Research has indicated that samples from MTurk are more representative of the adult population over convenience samples or college student samples (Paolacci, Chandler, & Ipeirotis, 2010). As previously described, participants were screened to select for those who met the criteria for the study. Every individual who completed the screening survey received \$0.20. Individuals who were qualified to participate in the study were invited to take a baseline survey. Invitations were sent via email to the eligible participants in order for them to complete the baseline survey. Demographics were collected in the baseline survey, including: participant personal, job-related, and commuting-related demographics. Participants received \$4 if they completed the baseline survey. Those who completed the baseline survey were then invited to take part in the daily diary study. About one week after participants filled out the baseline survey, they started completing once-daily surveys using the daily diary method after they got home from work. These daily diary surveys were collected over the course of 2 working weeks (10 business days). Participants received reminders via email twice a day throughout the data collection time period, which included links to the survey. \$2 were given to participants for each daily survey they completed, and an extra \$5 was given to participants who filled out all 10 daily surveys.

One week after the daily diary data collection, participants were sent a follow-up survey. \$5 was given to each individual who completed this follow-up survey. After the

study was completed, participants who filled out all of the surveys (baseline, 10 daily surveys, and follow-up survey) were eligible to win a \$25 bonus.

Results

In order to analyze the data, multilevel random coefficient modeling (MRCM) was used. This method was selected because of the hierarchical nature of the proposed data. Daily observations (Level 1) were nested within people (Level 2). Level 1 variables were modeled as random variables, as days and participants are assumed to be random. Person-level variables (Level 2) were included as fixed variables. I utilized Preacher, Zyphur, and Zhang's (2010; 2011) recommendations for modeling a 1-1-2 mediation in Mplus version 8.4. Specifically, the variance of Level 1 variables (i.e., daily job stress, daily work-related rumination) were estimated at both the within- and between levels of a multi-level path model. Level 2 variables (i.e., burnout) were only modeled at Level 2. All hypotheses were tested in Mplus, a statistical modeling program that allows for the testing of multilevel data.

Please see Burch and Barnes-Farrell (2019) for a description of how the data were examined for missingness and longitudinal invariance.

Descriptive Analyses

All descriptive analyses were conducted in SPSS version 26.0 (IBM Corp., 2019). The means, standard deviations, and correlations at the within and between levels for constructs of interest are reported in Table 1. Correlations are based on composite scores calculated for each construct. As can be seen by reviewing the tables, the daily study constructs of interest correlated significantly with the outcome of interest across the study period. There were a few variables that were controlled for in the study, including

schedule control and age. These variables were controlled for because daily job stress and daily work-related affective rumination may vary significantly by age. In addition, schedule control should theoretically reduce daily job stress and perceptions of burnout over time.

Hypothesis Testing

Hypothesis 1, daily job stress is positively associated with perceptions of burnout, was tested using multilevel regression to examine the cross-level direct effects of daily job stress on perceptions of burnout. Daily job stress was entered as the predictor variable, and burnout served as the outcome variable of interest. Support was found for Hypothesis 1 ($\gamma = .58, p < .001$) after controlling for schedule control and age.

Hypothesis 2, daily job stress is positively associated with daily work-related affective rumination, examined the within-level direct effects of daily job stress on daily work-related affective rumination. Daily job stress was entered as the predictor variable, with daily affective work-related rumination being the outcome variable of interest.

Hypothesis 2 was supported ($\beta = .58, p < .001$) after controlling for schedule control and age. Additionally, 34% of the variance in daily work-related affective rumination was attributed to daily variation in job stress.

Hypothesis 3, daily work-related affective rumination will be positively associated with perceptions of burnout, examined the cross-level direct effects of daily work-related affective rumination on perceptions of burnout. Daily work-related affective rumination was entered as the predictor variable with burnout serving as the outcome variable of interest. Results indicated support for Hypothesis 3 ($\gamma = .61, p < .001$) after controlling for schedule control and age. Approximately 49% of the variance in

perceptions of burnout was attributed to daily variation in work-related affective rumination.

Hypotheses 4, daily work-related affective rumination will mediate the relationship between daily job stress and perceptions of burnout, was examined using the cross-level mediation techniques described by Preacher, Zyphur, and Zhang (2010; 2011) that draw on the multilevel mediation techniques proposed by Mathieu and Taylor (2007). The first step is to estimate the possible influence of the control variables on the relationships of interest. This was done using ordinary least squares (OLS) for the Level 2 variable (burnout). If the variable of interest is influenced by potential covariates, they will be kept for use in subsequent analyses. Both schedule control and age exhibited a significant relationship with perceptions of burnout.

The second step to conducting multilevel mediation modeling is to assess the variance in within-and between-Level 1 variables for each Level 2 criterion. Level 2 variables must have significant variance in order to be used for modeling of cross-level effects (Mathieu & Taylor, 2007). The results indicated that 48% of the variance in perceptions of burnout was attributed to daily variation of job stress and work-related affective rumination. The influence of daily job stress on daily work-related affective rumination was also tested, as well as the influence of daily work-related affective rumination on perceptions of burnout. In addition, all cross-level effects were modeled as fixed variables within the model. Finally, daily job stress was added to the equations containing the test of the relationship between daily work-related affective rumination and perceptions of burnout (Mathieu & Taylor, 2007). After controlling for schedule control and age, daily job stress no longer predicted perceptions of burnout when daily

work-related affective rumination is included in the model. Therefore, a full mediation was found, as there was a significant indirect effect ($ab = .13, p < .001, 90\% \text{ CI} = .06, .20$). In order to give a more accurate estimate of the indirect effect, Bayes Credibility Intervals were used. A 90% credibility interval was observed, and was considered significant because neither interval contained a zero-value (.061, .202). This supports the indirect effect of daily job stress on perceptions of burnout through daily work-related affective rumination.

Finally, the research question concerning the relationship between problem-solving pondering and perceptions of burnout was examined through multilevel regression. Daily problem-solving pondering was entered as the predictor variable with burnout serving as the outcome variable of interest. There was support for the research question ($\gamma = .43, p < .001$) indicating that there is a significant, positive relationship between daily problem-solving pondering and perceptions of burnout. Approximately 35% of the variance in perceptions of burnout was attributed to daily variation in problem-solving pondering.

Discussion

The purpose of this study was to examine the effects that daily job stress and daily work-related affective rumination have on perceptions of burnout over time. A daily diary method with follow up survey was used, which allowed for the collection of data each day over the course of 10 business days, and again approximately two weeks later. This method was chosen in order to see the effects of different constructs across levels and time. I examined the relationships between daily job stress, daily work-related affective rumination, and perceptions of burnout, as well as the potential mediation of

daily work-related affective rumination in the relationship between daily job stress and perceptions of burnout.

This study contributes to the existing literature on job stress and burnout. Burnout is conceptualized as a chronic outcome of prolonged exposures to stress; however, little is known about the day level influences of the psychological components that are said to influence the development of burnout given methodological limitations in prior research. Using a daily diary design allows for the examination of daily and lagged relationships between job stress and perceptions of burnout over time. The daily focus allows one to account for day-to-day variation in constructs and examine the theoretical process that is said to contribute to burnout as one that is influenced by dynamic processes. Moreover, I integrated a number of theoretical approaches in the study of job stress and extend these models by including the examination of negative, cognitive processes that contribute to the perception of burnout overtime.

Results indicated support for all four hypotheses. Daily job stress was positively associated with perceptions of burnout over time, indicating that those who experience job stress on a daily basis will perceive stronger feelings of burnout in the future. Daily job stress also was positively associated with daily work-related affective rumination, suggesting that individuals who experience daily job stress also engage in daily work-related affective rumination, where they constantly think about the stressors they experience at work. Daily work-related affective rumination was positively associated with perceptions of burnout over time, suggesting that those who can't stop thinking about work-related issues will perceive stronger feelings of burnout. Finally, there was a full mediation of daily work-related affective rumination on daily job stress and

perceptions of burnout over time. This finding suggests that daily work-related affective rumination serves as a mechanism in the relationship between daily job stress and perceptions of burnout over time. The results indicated that after daily work-related affective rumination was entered into the model, there was no longer a relationship between daily job stress and perceptions of burnout over time.

I also investigated whether there was a relationship between problem-solving pondering and perceptions of burnout over time (research question 1). Results indicated that there was a positive association between daily problem-solving pondering and perceptions of burnout, suggesting that rumination, regardless of whether it is positive or negative, is likely to lead to perceptions of burnout. Previous research has indicated work-related affective rumination can influence burnout, but the idea that positive rumination also can influence burnout is equally as important. (Donahue et al., 2012; Sonnentag et al., 2010). Individuals in the workplace should strive to leave work-related issues at work, regardless of their potential for positive and/or negative associations, so thoughts about work do not affect their ability to function effectively in the work and home domains.

Theoretical Contributions

Results from the present study expand on multiple stress-related theories. I expand on the Job Demands-Resources Model by indicating that daily job stress can lead to burnout over time. However, stressors at work can be reduced through resources given to organizations. My results contribute to the Job Demands-Resources Model by reiterating the notion that stressors do lead to negative outcomes, and organizations should use resources to mitigate the effects. In addition, the results of this study extend

the cybernetic model of stress. This model suggests that “short-term dynamics operate within longer-term dynamics” (Edwards, 1992; Griffin & Clarke, 2011). My results further this by supporting the claim that daily job stress plays a role in longer term effects. My study suggests that burnout over time is influenced by both daily job stress and affective rumination, which reflects this model of stress.

Strengths and Limitations

This study has some important strengths that contribute to the overall validity of the study. First, the length of the daily diary study was much shorter than typical longitudinal studies, but still indicated important effects for the variables in question. This made the study much more efficient and less time-consuming for participants. In addition, daily diary studies reduce the potential for retroactive bias in reporting by collecting information on variables of interest on the days they occur.

Along with strengths, this study has limitations as well. There is a possibility that other constructs that were not measured could play a role in the relationships examined in this study. For example, constructs related to stress outside of the workplace, such as home life stressors, could increase perceptions of stress at work. If an individual relies on income to purchase meals for his or her family, he or she could feel increased stress at work to perform well in order to receive compensation. Another limitation is that participants were asked to respond to questions related to job stress, rumination, and burnout, which could have primed them to be more aware of stressors at work than they typically are on a daily basis. One other limitation is that the sample lacked diversity in regards to gender and race. Therefore, the sample is not representative of the U.S. population at large.

Future Research and Practical Implications

Future research should continue to examine the relationship between daily job stress and perceptions of burnout over time. Past research has extensively looked at short-term effects of job stress in the workplace, but research in the future should continue to look at long-term effects, such as burnout, in order to equip organizations to combat any negative impact they may have (Zhong et al., 2009). In the future, it would be beneficial to utilize a more comprehensive study. Examining the effects of more potentially relevant stressors would allow for a fuller understanding of these constructs, and would give additional insight on other long term effects. For example, a future study may reveal if different types of stressors in the workplace are more likely to increase perceptions of burnout over time than other stressors.

The results of the present study indicate the importance of knowing outcomes of rumination and daily job stress. This information is necessary for organizations in order for organizational policy makers to advocate for initiatives to decrease the prevalence of job stress and rumination in their employees, and over time decreasing feelings of burnout. Organizations should provide their employees with resources that allow them to detach from work when they leave, so they do not have pervasive thoughts, either positive or negative, while they are away from work. The Job Demands-Resource Model proposes that the addition of resources available to the employee can offset high stress levels that stem from job demands (Demerouti et al., 2001). These resources can be internal, such as effective coping mechanisms and psychological detachment from work, or they can be external, meaning the organization offers resources such as clarifying roles and boundaries (Bakker et al., 2004). For example, giving a clear definition of each

employee's role in the organization can alleviate stress and improve job satisfaction (Lyons, 1971). Information on the tasks and responsibilities employees need to complete can diminish stress levels caused by obscurity in the workplace. Organizations also can contribute to eliminating affective rumination by letting employees have a say in decisions that directly impact them. This would make employees feel like they have some control over their jobs, increasing job autonomy, and therefore decreasing stress (Demerouti et al., 2001), and potentially alleviate the propensity to engage in ruminative thinking about work as a result.

Furthermore, results may support the development of stress management interventions. One class of a stress management interventions involves utilizing cognitive-behavioral techniques in an effort to reduce stress. Studies have found that cognitive-behavioral interventions are very effective in helping employees reduce feelings of stress (Richardson & Rothstein, 2008). This involves assisting employees in modifying their thoughts about stressful experiences in order to help them cope. Cognitive-behavioral interventions have the potential to help employees exchange negative thoughts for positive thoughts about their work (Richardson & Rothstein, 2008). Other interventions include mediation and relaxation techniques. Easing muscle tension and controlling breathing gives an outlet to employees to focus on something that counteracts stress (Richardson & Rothstein, 2008).

Organizations also can implement time management and goal-setting interventions. These interventions give employees skills to prioritize tasks and schedule their days in order to alleviate stress from feeling overwhelmed. Other types of skills training include problem-solving, conflict resolution, and self-monitoring in order to help

employees be more aware of how to handle situations that may be stressful for them (Richardson & Rothstein, 2008). All of these interventions can be provided to employees by organizations as a means of helping employees manage stress stemming from work. Utilizing stress management interventions offers the potential to decrease daily job stress, and in turn, lessen the negative effects of burnout over time.

Conclusion

This thesis examined the influence of daily job stress and daily work-related affective rumination on perceptions of burnout over time. The study used a daily diary method to measure job stress and work-related rumination over the course of 10 business days, and measured burnout in each individual one time at the end of the 10 days. The results revealed that daily job stress was related to both daily work-related affective rumination and perceptions of burnout, and that daily work-related affective rumination partially mediated the relationship. In addition, the results indicated that problem-solving pondering, a positive form of rumination, also predicted perceptions of burnout. This suggests that any kind of rumination can influence feelings of burnout over time. This study is important because it gives insight to the negative effects that organizations can experience if they do not provide their employees with resources and tools to combat job stress.

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Table 1. Means, Standard Deviations, and Correlations

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1 Age	33.94	9.26	1.00						
2 Gender	0.37	0.48	0.15	1.00					
3 Schedule Control	2.14	0.98	0.18	-0.10	1.00				
4 Burnout	2.96	0.84	-0.31	0.15	-0.25	1.00			
5 Job Stress	2.76	2.96	-0.12	0.01	-0.08	0.44	1.00		
6 Work-Related AffRum	0.78	1.33	-0.03	-0.01	-0.05	0.45	0.68	1.00	
7 PSP	0.90	1.22	0.02	-0.03	0.08	0.18	0.29	0.43	1.00

Note: bold = significant at $p < .01$, Work-Related AffRum = Work-Related Affective Rumination; PSP = Problem-Solving Pondering

Table 2. Standardized regression weights for Hypotheses 1,2, 3, and Research Question

Models	Variables	Burnout			Affective Rumination		
		Est	SE	R2	Est	SE	R2
Level 1							
Direct							
Effects	Job Stress	0.58	0.08	0.40	0.58	0.02	0.34
	Aff. Rum.	0.61	0.07	0.50			
	PSP	0.43	0.10	0.35			
Indirect							
Effects							
Level 2							
	Sched.						
Controls	Control	-0.20	0.08		-0.14	0.09	
	Age	-0.23	0.08		-0.19	0.09	

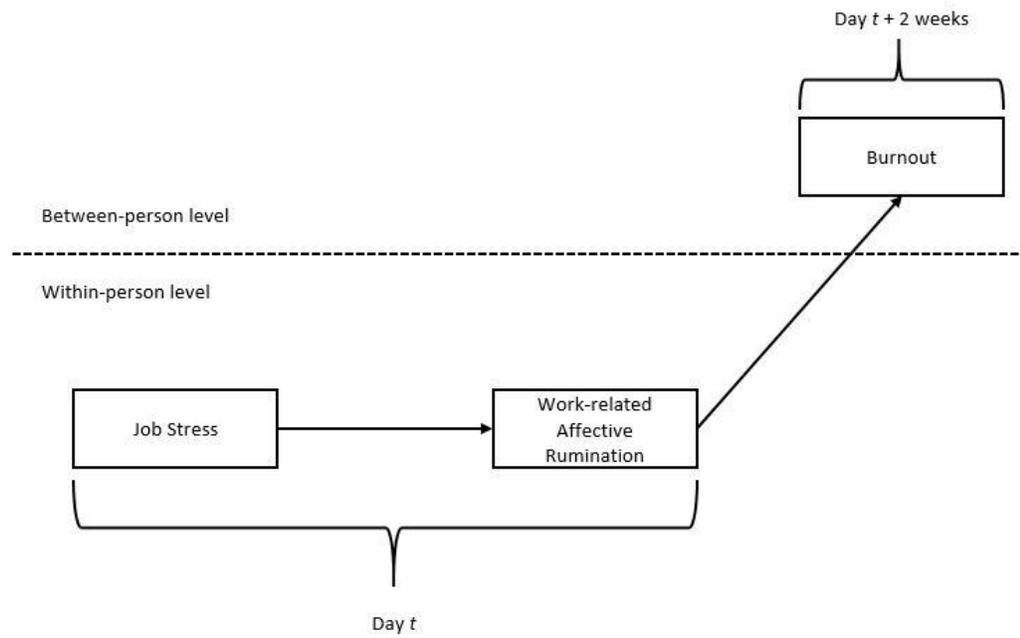
Note: bold = significant at $p < .05$; Aff. Rum. = Daily Work-Related Affective Rumination; PSP = Problem-Solving Pondering

Table 3. Standardized regression weights for Hypothesis 4

Models	Variables	Burnout			Affective Rumination			Indirect Effect		
		Est	SE	R2	Est	SE	R2	Est	SE	90% Bayes CI
Level 1										
Direct Effects										
	Job Stress	0.26	0.15	0.48	0.58	0.02	0.34	0.13	0.04	.06, .20
	Aff. Rum.	0.40	0.13	0.65						
Indirect Effects										
Level 2										
Controls	Sched. Control	-0.14	0.08							
	Age	-0.20	0.08							

Note: bold = significant at $p < .05$; Aff. Rum. = Daily Work-Related Affective Rumination

Figure 1. Conceptual Model



APPENDIX

Surveys

Job Stress in General		
REFERENCE: Stanton, J., Balzer, W., Smith, P., Parra, L., & Ironson, G. (2001). A general measure of work stress: The stress in general scale. <i>Educational and Psychological Measurement</i> , 61(5), 866-888.		
STEM: Please indicate if you felt any of the following during your workday today:		
Var. Name		Response Scale
Job_stress1	Pressured	0 = no 1 = yes
Job_stress2	Hectic	
Job_stress3	Calm (R)	
Job_stress4	Stressed	
Job_stress5	Irritated	
Job_stress6	Nerve-wracked	
Job_stress7	Hassled	
Job_stress8	Comfortable (R)	
Job_stress9	Overwhelming	

Work-related Rumination Questionnaire (Affective Rumination and Problem-Solving Pondering only)		
REFERENCE: Cropley, M., Michalianou, G., Pravettoni, G., & Millward, L.J. (2012). The relation of post-work ruminative thinking with eating behavior. <i>Stress and Health</i> , 28, 23-30. doi: 10.1002/smi.1397		
STEM: Please indicate if you felt this way today:		
Var. Name		Response Scale
Aff_rum1	I was annoyed by thinking about work-related issues	0 = no 1 = yes
Aff_rum2	I was irritated by work issues	
Aff_rum3	I was fatigued by thinking about work-related issues	
Aff_rum4	I was troubled by work-related issues	
PSP_1	I thought of how I can improve my work-related performance	

PSP_2	I re-evaluated something I had done at work	
PSP_3	I thought about tasks that need to be done at work the next day	
PSP_4	I found solutions to work-related problems	

15 items from Oldenburg Burnout Inventory		
REFERENCE: Demerouti, E., Bakker, A.B., Nachreiner, F., & Schaufeli, W.B. (2001). The job demands-resources model of burnout. <i>Journal of Applied Psychology</i> , 86, 499-512.		
Var. Name		Response Scale
Burnout1R	I always find new and interesting aspects in my work	1= strongly disagree
Burnout2	More and more often I talk about my work in a negative way	2 = disagree
Burnout3	After work, I tend to need more time than in the past in order to relax and feel better	3 = neutral
Burnout4	Lately, I tend to think less at work and do my job almost mechanically	4 = agree
Burnout5R	I find my work to be a positive challenge	5 = strongly agree
Burnout6	At work, I often feel emotionally drained	
Burnout7	Over time, one can become disconnected from this type of work	
Burnout8R	After work, I have enough energy for leisure activities	
Burnout9	After work, I usually feel worn out and weary	
Burnout10R	This is the only type of work that I can imagine myself doing	
Burnout11	There are days when I feel tired before I arrive at work	
Burnout12R	I can tolerate the pressure of my work very well	
Burnout13R	I feel more and more engaged in my work	
Burnout14R	When I work, I usually feel energized	
Burnout15	Sometimes I feel really disgusted with my work	