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Leisure as a coping resource: A test of the job demand-control-support model

Allan D. Joudrey and Jean E. Wallace

ABSTRACT

This article explores whether leisure is an effective coping resource in response to the demands of one's job and in reducing depression. Karasek's job demand-control-support (JDCS) model of psychological strain serves as a framework for empirically examining the importance of leisure in reducing depression and buffering the detrimental effects of excessive job demands. This article relies on data from a sample of 887 law firm lawyers who are renowned for working in highly stressful work settings. We find that participating in active and social leisure activities or taking a vacation are important in reducing lawyers' depression, whereas participating in passive leisure is not. None of the leisure variables buffer the harmful effects of job demands on depression. We discuss the implications of these findings.

KEYWORDS

coping ■ depression ■ job stress ■ leisure ■ professionals

A growing body of research has been devoted to the study of work-related stress, where researchers have tested the relationships among the sources, outcomes and coping strategies related to job stress. Many of the key sources of job stress have been located within the context of the workplace where one's workload, in terms of long hours and demanding conditions, is a commonly identified factor (Cooper et al., 2001). Some form of psychological distress is often used to assess the outcomes of work-related stress (Van der Deof & Maes, 1999). Psychological distress includes moods of depression as well as the physiological symptoms associated with those moods.
Depression has been recognized as the most common form of psychological distress that is experienced by everyone at some time to some degree and that correlates with other types of distress such as anger, anxiety and clinical diagnoses of depression (Ross & Mirowsky, 1989; Wallace, 2005). Lastly, a considerable body of the coping literature has examined the role of different types and sources of social support as resources that people use in response to stressful working conditions (House et al., 1988; Lincoln et al., 2003; Ross & Mirowsky, 2002; Thoits, 1995; Wellman & Wortley, 1990). More recently, leisure has been identified as a mechanism for coping with work as well as non-work stress (Caldwell, 2005; Haworth & Lewis, 2005; Zijlstra & Sonnentag, 2006).

Just as stress has received growing attention in the public and academic arenas, so have the ideas of life balance, health and leisure. A healthy and balanced lifestyle is promoted as creating and fostering a physically and psychologically well person. Research in this area shows that leisure is significant in predicting physical and mental health and wellness (Bird & Fremont, 1991; Iso-Ahola, 1997; Schneider & Iwasaki, 2003; Trenberth, 2005; Trenberth & Dewe, 2002; Ylipaa et al., 2002). As well, an increasing number of researchers are promoting how important leisure is to understanding job stress and coping strategies (Haworth & Lewis, 2005; Schneider & Iwasaki, 2003; Trenberth & Dewe, 2002), which is an important objective of this article.

The purpose of this article is to explore whether leisure is an effective coping resource in response to the demands of one’s job and in reducing depression. Karasek’s job demand-control-support (JDCS) model of psychological strain serves as a framework for empirically examining the importance of leisure in reducing depression and buffering the detrimental effects of excessive job demands. Thus, the JDCS model will be extended by including leisure activities as potential coping resources. In doing so, we analyze data from a sample of law firm lawyers because they are renowned for working in highly demanding work settings that are associated with considerable mental strain (e.g. Kay, 1997; Wallace, 2005). As well, numerous studies have documented that as a result of stress, burnout or depression, many lawyers are leaving the profession (Brockman, 1994; Hagan & Kay, 1995; Keeva, 2006).

**Leisure as a coping resource**

As indicated above, much of the literature largely focuses on the role of social support as a coping resource for employees experiencing work stress, which
is also examined in this article. More recently in the last decade, the concept of leisure has been investigated as a potential coping response in the field of health and wellness (Iwasaki & Mannel, 2000; Iwasaki & Schneider, 2003). Leisure refers to activities that a person voluntarily engages in when they are free from any work, social or familial responsibilities (Esteve et al., 1999).

Several different explanations have been posed to explain the benefits of leisure as a coping resource that highlight how leisure may offer opportunities for recovery, protection and/or resiliency in response to stressful situations. For example, Sonnentag and her colleagues (Fritz & Sonnentag, 2006; Zijlstra & Sonnentag, 2006) suggest that recovering from the daily strains and demands of work is an important part of a healthy lifestyle. Sonnentag (2003) explains how the effort and energy expended at work draws upon an individual’s resources that may negatively affect their performance, mood and overall well-being. Zijlstra and Sonnentag (2006) propose that leisure may offer an opportunity for replenishing one’s resources or recovering from work through simply changing activities or by being involved in activities that are freely or intrinsically chosen rather than externally prescribed and regulated.

Caldwell (2005) asks the question ‘why is leisure therapeutic?’ and proposes that leisure may be associated with a number of protective factors that enhance a person’s resiliency to negative life experiences. From her review of the literature, she identifies specific aspects of leisure activities that may act as protective factors by: being personally meaningful, intrinsically interesting and/or challenging; offering social support and friendships; contributing to a sense of competence and/or self efficacy; offering a sense of personal control, choice and self-determination; and being relaxing and/or distracting the individual from negative life events.

Iwasaki and his colleagues examined how leisure may function as a palliative coping strategy offering greater resilience in coping with stress (Iwasaki, 2003, 2006; Iwasaki & Mannel, 2000; Iwasaki et al., 2005). They illustrate how leisure may be characterized as ‘a positive diversion or “time out” from stress-inducing situations and thoughts, and a context for rejuvenation and renewal’ (Iwasaki et al., 2005: 93). In this way, participating in leisure activities may act as a diversion by offering alternative, positive experiences that deflect thoughts about the current stress in an individual’s life (Trenberth & Dewe, 2002). In terms of rejuvenation and renewal, leisure may help in the formation of a different perspective towards the stressful situation or help individuals feel refreshed when returning to their regular day-to-day activities. Through a ‘time out’, gaining a better sense of perspective, or feeling renewed, individuals may be more resilient in responding to stress and better able to cope with the negative events in their lives.
Along similar lines, another type of ‘time out’ from work involves taking a vacation. Vacations have been examined as a type of break from work that also offers potential opportunities for recovery, protection and/or resiliency and that may be beneficial in coping with negative work experiences (Fritz & Sonnentag, 2006; Iwasaki et al., 2005; Sonnentag, 2003; Westman & Eden, 1997; Zijlistra & Sonnentag, 2006). Vacation is defined as a ‘cessation from work, a time when a person is not actively participating in his or her job’ (Lounsbury & Hoopes, 1986: 394). As a coping resource, taking a vacation can be regarded as a distinctly different construct from other forms of leisure. As Maume states,

. . . [t]he concept of leisure time differs qualitatively from vacation time in that the latter typically connotes an escape from the routines of daily life. Indeed, opinion polls show that only 1 in 10 adult Americans plan to spend their vacation at home, but nearly half prefer vacations that offer new experiences. (2006: 163)

This article examines both forms of non-work breaks. First, participation in three different types of leisure activities are examined and described in greater detail below. Second, use of vacation time is discussed as a coping resource that is also hypothesized to contribute to well-being.

Participation in leisure is examined in this article in terms of passive, active and social leisure activities. Passive leisure refers to activities that are restful, restorative or recuperative in nature (Bird & Fremont, 1991; Mannell & Kleiber, 1997) or a quiet ‘time out’ from stressful situations (Iwasaki et al., 2005). Passive leisure activities are not physically exertive and include, for example, watching television or movies, listening to music, reading books or newspapers. In contrast, active leisure involves some degree of physical exertion (Bird & Fremont, 1991; Iwasaki et al., 2005; Mannell & Kleiber, 1997) and includes a variety of recreational activities such as running, walking, swimming, and cycling.

The results from research examining the effectiveness of leisure as a coping resource is mixed. Some report that leisure activities are significant in predicting general health (Bird & Fremont, 1991; Ylipaa et al., 2002) and that active leisure is an effective coping strategy (Iso-Ahola, 1997). Others have found that individuals in ‘high strain’ jobs may find leisure is less effective (Cropley & Millward-Purvis, 2003), but it has also been reported that the greater one’s stress, the more important leisure becomes as a coping resource (Trenberth & Dewe, 2002). Research also reports mixed effects for
A third form of leisure that is explored in this article is social leisure. Social leisure refers to activities that involve interaction with other people. This form of leisure has received minimal attention in the literature, possibly because research in this area tends to focus on the social support derived from participating in such activities rather than the amount of participation in the activities themselves (Caltabiano, 1994; Iwasaki et al., 2005). Social leisure activities can include spending time with friends, attending a social function or party, or a host of other interactive behaviors (Iwasaki et al., 2005). Such pursuits can contribute to a sense of community or belonging that is fostered through communication and interaction amongst members of a social group (Lloyd & Auld, 2002). This form of leisure is not active in that it is neither exertive nor physical. It also differs from passive leisure, since conversing and attending social events involve either participation and/or some type of attention directed towards others (Lee & McCormick, 2006). The literature suggests that social activities can be significant in fostering positive perceptions of life quality (Lee & McCormick, 2006; Lloyd & Auld, 2002) and mental health (Caltabiano, 1994; Iwasaki et al., 2005).

In addition, we examine vacation time as a coping resource. Taking a vacation may foster individuals’ sense of control over their lives, as it can provide an opportunity for pursuing interests that are not work-related (Strauss-Blasche et al., 2002). Generally, a break or respite from the demands of work, which is the ideal function of a vacation, should have a positive effect on the psychological health and wellness of the individual. The existing research on vacation time as a coping resource is also mixed however. Some research suggests that taking a vacation is beneficial to an individual’s well-being and health (Iwasaki et al., 2005; Westman & Eden, 1997), whereas other studies show that the effects of vacation typically fade over time after the individual has returned to work (Fritz & Sonnentag, 2006; Strauss-Blasche et al., 2002). An explanation for this finding is that high work demands often negate the restorative function of a break. Others suggest that people may worry about the demands and responsibilities of work even though they are not there (Cropley & Millward-Purvis, 2003) or that job demands seem more overwhelming upon returning to work after taking a break (Strauss-Blasche et al., 2002). As a coping resource, we expect that taking a vacation will reduce depression.

Hypothesis 1: Greater participation in leisure activities (active, passive and social) and vacation time will result in less depression.
Karasek’s job demand-control (support) model

Karasek’s (1979) job demand-control theory has been researched in the work stress literature for three decades. The JDC model predicts that psychological strain results from high job demands and low control over work tasks. High job demands are not necessarily problematic, but when combined with low job control, a reduced ability to cope with strain arises; in other words, a person’s coping ability is diminished. Job demands refer to workload stressors that are often examined in terms of time pressures, role conflict or role overload. Job control, also referred to as job discretion or decision latitude, is the worker’s ability to decide how best, and when, to perform tasks.

The job demand-control-support model includes the addition of social support to the basic JDC model (Karasek et al., 1982; Searle et al., 2001). Social support refers to the interpersonal resources that individuals may draw upon in times of stress that may help them cope with the demands of their work. The ‘iso-strain’ hypothesis, or ‘buffer hypothesis’, predicts that those who experience high strain and low social support (isolated workers) suffer the highest degree of psychological strain and are therefore at the highest risk for the negative effects of workplace demands (Karasek & Theorell, 1990; Karasek et al., 1982).

Job demands

Job demands are defined as work-related duties that are based on the roles and expectations of one’s job. Common job demands that have been found to negatively impact health and well-being are work hours, work overload, spillover and professional demands (Van der Doef & Maes, 1999). Work hours refer to the average number of hours worked in a typical week. Long work hours have been reported to have a negative impact on mood states such as depression, emotional exhaustion, and burnout (Gillespie & Melby, 2003). This is particularly prevalent among law firm lawyers, who are known for working extremely long work hours. Their long hours have been found to contribute to lawyers leaving the practice of law as well as increased dissatisfaction and depression, and conflict between work and home life (Brockman, 1994; Rhode, 2002; Wallace, 1997, 2001).

Work overload refers to the extent to which the demands of the job are felt to be overwhelming or excessive. Work overload has been reported as a key concern where employees feel there is a lack of time to perform a task correctly and thoroughly (Gillespie & Melby, 2003). Research has shown that work overload has negative effects on health and well-being as it is linked to high levels of stress, fatigue and depression (Gillespie & Melby,
2003; Narayanan et al., 1999; Wallace, 2005). The expectation to be highly productive under constant pressure and time constraints illustrates the overwhelming nature of practicing law, which makes it undesirable for many individuals (Brockman, 1994).

Work spillover refers to the extent to which work-related thoughts and stress invade an individual's non-work life. Being unable to unwind at home after a stressful work day reflects an inability to 'shut off' work after leaving the workplace. When this occurs, the work-related issues and concerns that have accumulated throughout the day may interfere with time that could be used to recuperate from the stress of the day (Cropley & Millward-Purvis, 2003; Sonnentag, 2003). Researchers have found that spillover from work to home results in increased feelings of stress, job dissatisfaction, desire to quit and depression (Brockman, 1994; Wallace, 2001).

Most research tends to rely on measures that ask respondents to report on the extent to which they have experienced certain generic stress conditions (Van der Doef & Maes, 1999). Such approaches may not adequately capture the stress-related experiences that are relevant to a particular job or occupations (Narayanan et al., 1999). Literature on lawyers suggests that in addition to job demands that reflect long work hours and excessive role demands, there are occupation-specific pressures that reflect the broader climate of the legal profession that cut across work settings and specialties (Cooper & Humphreys, 1996; Nelson & Trubek, 1992; Rhode, 2000). This source of strain results from the increasing numbers of lawyers, which fosters competition and an emphasis on generating profits.

This article taps this element of the legal environment by including two occupation-specific job demands: the profit demands of law and the incivility among lawyers. In regard to the profit demands of law, the practice of law has become the 'business' of law with professional relationships shifting away from collegiality to greater competitiveness that emphasizes maximized billing hours and intra-firm competitiveness (Kessler, 1997; Nelson & Trubek, 1992; Rhode, 2000; Wallace, 1997, 2001). The business of law, with its ongoing pursuit of monetary profit to ensure business stability and growth, has added to the general feeling of pressure and psychological strain in the profession (Rhode, 2002). In addition, the preoccupation with profit has exacerbated feelings of work-related strain, in part due to the lack of mutual respect amongst colleagues acted out as incivility towards one another. These day-to-day interactions have tarnished the reputation of the profession and have added to negative feelings lawyers hold toward their careers. Lawyers’ perceptions of the climate within the profession have been reported to be stressful in terms of the social atmosphere and how lawyers treat one another (Wallace, 2001).
Hypothesis 2: Greater job demands (work hours, work overload, work spillover, profit orientation and incivility) will result in greater depression.

Job control

Job control is defined as a worker’s ability to decide how and when to perform their work tasks or duties. Some suggest that for the demand-control model to be correctly tested, job controls must be specifically related to the job demands under study (Van der Doef & Maes, 1999; Wall et al., 1995; Wallace, 2005). In light of this, we included two time-based measures of job control that should be most relevant to the time-based job demands examined in this study. One way workers may experience a sense of job control is through their ability to control when their work is performed. The freedom to decide when to work may assist in coping with the demands of the job, or conversely, an inability to control when additional hours are worked should be detrimental to psychological well-being or depression. A second way in which the individual experiences some degree of personal discretion over work is having some degree of control over the number of hours worked. Lawyers, as well as other professionals, seem to be both internally driven and expected from a professional standpoint to work long hours. Having a sense of discretion or personal latitude over how many hours are required to complete job-related tasks should decrease the over-riding sense of time urgency and ultimately act to reduce the amount of strain that is experienced (Wall et al., 1995).

Hypothesis 3: Greater job control (over when hours are worked and how many hours worked) will result in less depression.

Social support

Social support refers to interpersonal coping resources where one person helps another to enhance and improve their well-being. The general theory regarding social support is that in various forms it has a positive or healthy effect on the individual or members of the social group (Cohen & Syme, 1985; LaRocco et al., 1980; Thoits, 1995). Emotional social support is defined as having contact and/or interaction with others who show concern, listen, display empathy, or assist in self esteem or the individual’s sense of mastery (House et al., 1985). A source of support that is commonly found in the work literature is from one’s co-workers (Thoits, 1995).¹ Research has shown that a lack of support from colleagues negatively affects worker
well-being, whereas the ability to draw on others in a somewhat personal and emotional way should have a positive effect on psychological well-being (Lincoln et al., 2003; Ross & Mirowsky, 2002; Thomas & Ganster, 1995).

**Hypothesis 4**: Greater social support will result in less depression.

As indicated above, there are two different models of how social support and other coping resources (e.g. job control) function in the JDC model. The ‘main effects’ hypothesis claims that social support, or any other coping resource, has a direct effect on the outcome variable of interest, regardless of any particular relationship between it and any other variable in the model. The ‘buffer hypothesis’ broadly states that coping resources moderate or interact with a job demand and reduce or buffer the effects of the demand variable on the outcome variable. For example, for those experiencing high demands and high social support, the effect of the job demands are hypothesized to be less detrimental than for those with low levels of support. Generally, the main effects hypothesis has received more empirical corroboration than the buffer effects hypothesis (Rodriguez et al., 2001; Van der Doef & Maes, 1999). In this article, the buffer effects of all three sets of coping resources, namely leisure, job control, and social support, will be empirically assessed.

**Hypothesis 2a**: Greater participation in leisure activities and vacation time use will buffer (reduce) the association between job demands and depression.

**Hypothesis 2b**: Greater job control will buffer (reduce) the association between job demands and depression.

**Hypothesis 2c**: Greater social support will buffer (reduce) the association between job demands and depression.

**Control variables**

Four variables are included as controls in the model: adequate income, years of experience, sex and workaholism. Adequate income, which is defined as income that is sufficient to meet one’s needs, is included, rather than actual earnings, because the latter is highly correlated with years of work experience. Income is often positively related to psychological health (Ross & Mirowsky, 1989). Years of work experience is also included as a control variable since the more work experience one has, the more familiar they are
with the routine and expectations of the profession. Greater professional experience can be considered both a result and indicator of being successfully adjusted to or conditioned by excessive strain. Generally, women are more likely than men to experience depression (Hagan & Kay, 2007; Ross & Mirowsky, 1989), so respondents’ sex is controlled for in this model. Workaholics are characterized by a strong inner drive, work excessively and are to some degree obsessed with their work, which has been reported correlated with high levels of stress and health complaints (Taris et al., 2005). Research also indicates that professionals are more likely to be workaholics than workers from other occupations (Harpaz & Snir, 2003).

Data and methods

This article analyzes survey data collected through mail-out questionnaires that were sent to all lawyers practicing in the Province of Alberta in July 2000. Questionnaires were mailed to 5921 lawyers and 1827 surveys were returned, yielding a 31 percent response rate. Comparing the provincial data available from the Alberta Bar Association to the sample data, those who responded represent similar proportions of lawyers with regards to distributions by gender, city, and practice setting (available from authors).

The sample used in this analysis is restricted to lawyers who were practicing in law firms at the time of the study (N = 983). Law firm lawyers are renowned for the long hours that they work and the highly demanding nature of their practice, not only in comparison to other professionals, but also compared to other types of legal practices, such as working in corporate or government settings (Wallace, 1997). In addition, only law firm lawyers are included because there are considerably fewer uniformities and commonalities in the organizational structure, job characteristics and work experiences of lawyers employed across legal work settings other than law firms (Wallace, 1995). After list-wise deletion, the sub-sample includes 887 respondents that represents 594 (67%) men and 293 (33%) women. Their average years of law experience was approximately 12 years, although their experience ranged from those in their first year of law to those who had practiced 40 years or longer. On average, lawyers in this sample worked approximately 54 hours a week.

Measures

Many of the measures included in the analysis are multiple Likert items. Unless otherwise indicated, the response categories include strongly agree
(coded 5), agree (coded 4), neither agree or disagree (coded 3), disagree (coded 2), and strongly disagree (coded 1). Mean scores were calculated by summing the values of the items and dividing by the number of items in the scale. Reliability coefficients (Cronbach’s alpha, $\alpha$) are also reported for the Likert item measures.

Depression was measured by seven items from Ross and Mirowsky’s (1989) shortened version of the Centre for Epidemiology Studies of Depression Scale (CES-D) scale developed by Radloff (1977). This measure captures the frequency of a depressed mood (e.g. feeling sad or lonely) and physiological malaise (e.g. trouble concentrating or sleeping) (Ross & Mirowsky, 2006). This scale measures symptoms of depression in the general population and does not indicate a clinical diagnosis of depression. Respondents were asked to report how often, in the past week, they had experienced the following: had trouble getting or staying asleep, couldn’t get going, had trouble staying focused on what they were doing, felt everything they did required effort, felt sad, felt lonely, or couldn’t shake the blues. Responses ranged from ‘never’ (coded 1) to ‘most of the time’ (coded 4) ($\alpha = .87$).

The 14 leisure items included in the questionnaire were constructed from 120 lawyers’ responses to an open-ended interview question from an earlier study that asked how they usually spend their leisure time (refer to Wallace (2002), for a detailed description of this study). Each respondent identified, on average, three or four leisure activities, and in total the sample identified 56 different activities. The items constructed for the questionnaire were based on the most popular activities reported by the 120 interview participants. Passive leisure was measured by four items where respondents indicated how often they: watch television or videos; read a book, newspapers or magazines; go to the movies; or work on hobbies at home. Active leisure was measured by five items where respondents reported how often they: work out or go to the gym; run or jog; walk for pleasure; play organized sports; or cycle for pleasure. Social leisure was measured by five items that indicated how often respondents: visit family or friends at their homes; talk with friends on the phone; go out for dinner with friends; attend club or community group meetings; or attend church. For all three leisure variables, the responses range from ‘never’ (coded 0) to ‘almost daily’ (coded 8) and the responses were summed to compute a total frequency score.

The leisure scales are frequency report scales and there is no a priori reason to assume than an individual participating in one particular leisure activity is likely to engage in other leisure activities or to engage in various leisure activities to the same frequency. For example, if a participant reports working out at the gym almost daily, there is no reason to assume that they
will also engage in running/jogging, walking, playing organized sports, and cycling almost daily as well. As a result, respondents’ reports of their frequency of leisure participation is not likely to be uni-dimensional, nor will the items be homogeneous. Thus the use of a measure of internal consistency is inappropriate.

Vacation time was measured by a single item where respondents reported how many weeks of vacation time they took in the year previous to the survey.

Work hours was measured by two items tapping how many hours in an average week respondents work at the office and at home (including evenings and weekends). Work overload was measured by four Likert items from Caplan et al. (1975) that tapped the extent to which respondents felt they did not have enough time to get everything done at work, their workload was too heavy, they had to work very quickly and they often feel rushed at work (α = .80). Work spillover was measured by three Likert items from Fimian et al. (1988) that tap the degree to which respondents think about work when not at work, it takes them a long time to relax after they leave work, and they have bad dreams that are work related (α = .65). Profit orientation was measured by a single Likert item constructed for this study that taps whether respondents feel the practice of law is primarily about generating profit. Incivility among lawyers was measured by three Likert items constructed for this study that assess the extent to which respondents observe a lack of respect displayed among lawyers, find dealing with lawyers stressful and encounter lawyers who are uncivil to one another (α = .82).

Control over when hours are worked is measured by a single Likert item: I have considerable control over when I work the hours I work. Control over the number of hours worked is measured by a single Likert item: I have considerable control over the number of hours I work. Social support was measured by four Likert items from Thomas and Ganster (1995). Respondents were asked: when you talk about the stresses of your job, how much do the lawyers you usually talk to: listen to your work-related problems; empathize with your stresses; offer support and encouragement; show concern. Responses ranged from ‘never’ (coded 1) to ‘most of the time’ (coded 4) (α = .85).

Adequate income was measured by a single Likert item from Kelly and Voyandoff (1985) where respondents indicated whether they felt that they had enough money for all their needs. Sex (male) was coded 1 for males and 0 for females. Years of experience was calculated by subtracting the year the lawyer was called to the bar from the year the survey was completed. Workaholism was measured by a single Likert item from Marks and MacDermid (1996) where respondents were asked if they felt it would be accurate to describe themselves as somewhat of a workaholic.
Analytic approach

Before any statistical analyses were performed, the zero-order correlations between the exogenous variables were examined. Table 1 contains the zero-order correlations, means and standard deviations for all variables included in the analysis. None of the correlations presented in Table 1 suggest multicollinearity is of concern as the highest correlation between any of the independent variables is .43. In addition, variance inflation factors (VIF) were also calculated (available from authors) and there was no indication of collinearity problems.

To test the hypotheses presented above, Ordinary Least Squares (OLS) multiple regression was used. All 16 of the independent variables were entered simultaneously into the equation to create the full estimated model presented in Table 2. This allows us to test the main effect hypotheses presented above (Hypotheses 1–4). The variables were entered simultaneously rather than hierarchically because there was no a priori reason to expect a particular ordering of effects among the four subsets of variables.

Interaction terms, or multiplicative terms, were used to assess the buffer effects of the leisure, control and support variables with all the job demand variables. For example, the multiplicative terms of job demands-by-leisure (Hypothesis 2a), job demands-by-control (Hypothesis 2b), job demands-by-support (Hypothesis 2c), test whether the relationships between job demands and depression vary depending on respondents’ levels of leisure, control or support. All 35 possible combinations of interaction terms were added in seven separate blocks (one block for each possible moderating variable) to the main effects model (presented in Table 2). For example, the first block included five interaction terms for ‘job control over when hours are worked’ for all five of the job demand variables, the second block included five interaction terms for ‘job control over how many hours worked’ and all five of the job demand variables, etc.

Results

First, we tested to see whether the hypothesized buffer effects (Hypotheses 2a, 2b and 2c) were statistically significant in order to determine whether an interaction (moderating) model or additive (main effects) model was most appropriate. Only three of the 35 interaction terms were statistically significant. Specifically, the interaction terms for work hours-by-social leisure ($b = -.00$, $\beta = -.36$, $t = -1.95$), work overload-by-social leisure ($b = .02$, $\beta = .14$, $t = 3.61$) and work spillover-by-when hours are worked ($b = -.03$, $\beta = -.23$, $t = -1.70$) were statistically significant. Empirical support for the buffering hypothesis is indicated by a significant negative interaction
Table 1  Means, standard deviations and zero-order correlations between study variables (N = 887)

<table>
<thead>
<tr>
<th>Variable (# items)</th>
<th>Mean (SD)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<th>9</th>
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<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Depression (7)</td>
<td>1.97 (.54)</td>
<td>.01</td>
<td>−.15</td>
<td>−.15</td>
<td>−.18</td>
<td>.11</td>
<td>.10</td>
<td>.26</td>
<td>.46</td>
<td>.30</td>
<td>.27</td>
<td>−.22</td>
<td>−.17</td>
<td>−.02</td>
<td>−.12</td>
<td>−.18</td>
<td>−.19</td>
<td>−.20</td>
</tr>
<tr>
<td>2. Adeq income (1)</td>
<td>3.34 (1.12)</td>
<td>1.00</td>
<td>−.07</td>
<td>.01</td>
<td>.03</td>
<td>.05</td>
<td>−.07</td>
<td>−.13</td>
<td>−.11</td>
<td>−.04</td>
<td>−.03</td>
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<td>.08</td>
<td>.02</td>
<td>.09</td>
<td>.05</td>
<td>.17</td>
<td></td>
</tr>
<tr>
<td>3. Sex (Male=1) (1)</td>
<td>.67 (.47)</td>
<td>1.00</td>
<td>.28</td>
<td>−.03</td>
<td>.09</td>
<td>−.03</td>
<td>−.12</td>
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<td>.09</td>
<td>.02</td>
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<td>.14</td>
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<tr>
<td>4. Years’ exp (1)</td>
<td>12.41 (9.23)</td>
<td>1.00</td>
<td>.01</td>
<td>−.15</td>
<td>−.06</td>
<td>−.13</td>
<td>−.20</td>
<td>.01</td>
<td>.25</td>
<td>.16</td>
<td>−.12</td>
<td>−.01</td>
<td>.05</td>
<td>.07</td>
<td>.31</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5. Workaholism (1)</td>
<td>3.00 (1.08)</td>
<td>1.00</td>
<td>.41</td>
<td>.38</td>
<td>.29</td>
<td>.02</td>
<td>.05</td>
<td>−.23</td>
<td>.01</td>
<td>.00</td>
<td>−.16</td>
<td>−.09</td>
<td>−.11</td>
<td>−.13</td>
<td></td>
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</tr>
<tr>
<td>6. Work hours (1)</td>
<td>53.77 (10.51)</td>
<td>1.00</td>
<td>.29</td>
<td>.12</td>
<td>.06</td>
<td>−.03</td>
<td>−.30</td>
<td>−.04</td>
<td>.01</td>
<td>−.12</td>
<td>−.02</td>
<td>−.09</td>
<td>−.15</td>
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<tr>
<td>7. Work overload (4)</td>
<td>3.52 (0.75)</td>
<td>1.00</td>
<td>.43</td>
<td>.13</td>
<td>.21</td>
<td>−.28</td>
<td>.12</td>
<td>−.01</td>
<td>.20</td>
<td>−.08</td>
<td>−.19</td>
<td>−.09</td>
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<tr>
<td>8. Work spillover (3)</td>
<td>3.20 (0.83)</td>
<td>1.00</td>
<td>.17</td>
<td>.35</td>
<td>−.15</td>
<td>.01</td>
<td>.10</td>
<td>.16</td>
<td>.08</td>
<td>.04</td>
<td>.10</td>
<td>−.15</td>
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<tr>
<td>9. Profit orient (1)</td>
<td>3.31 (1.14)</td>
<td>1.00</td>
<td>.25</td>
<td>−.20</td>
<td>−.15</td>
<td>.10</td>
<td>−.08</td>
<td>.04</td>
<td>−.10</td>
<td>−.15</td>
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<tr>
<td>10. Incivility (3)</td>
<td>3.20 (0.94)</td>
<td>1.00</td>
<td>.07</td>
<td>−.05</td>
<td>.08</td>
<td>.04</td>
<td>−.05</td>
<td>−.05</td>
<td>−.04</td>
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<tr>
<td>11. When hours (1)</td>
<td>3.36 (1.15)</td>
<td>1.00</td>
<td>.37</td>
<td>.01</td>
<td>.16</td>
<td>.08</td>
<td>.12</td>
<td>.14</td>
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</tr>
<tr>
<td>12. Number of hours (1)</td>
<td>3.64 (1.04)</td>
<td>1.00</td>
<td>.06</td>
<td>.05</td>
<td>−.01</td>
<td>.08</td>
<td>.11</td>
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<tr>
<td>13. Social support (4)</td>
<td>2.97 (0.66)</td>
<td>1.00</td>
<td>.07</td>
<td>−.04</td>
<td>.03</td>
<td>−.09</td>
<td></td>
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<tr>
<td>14. Passive leisure (4)</td>
<td>17.73 (3.34)</td>
<td>1.00</td>
<td>.21</td>
<td>.31</td>
<td>.05</td>
<td></td>
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<tr>
<td>15. Active leisure (5)</td>
<td>15.01 (6.67)</td>
<td>1.00</td>
<td>.28</td>
<td>.09</td>
<td></td>
<td></td>
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<tr>
<td>16. Social leisure (5)</td>
<td>16.07 (4.55)</td>
<td>1.00</td>
<td>.10</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>17. Vacation time (1)</td>
<td>3.05 (1.70)</td>
<td>1.00</td>
<td></td>
<td></td>
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</tbody>
</table>
Thus, only two of the interactions were in the hypothesized direction of a buffering effect and, for the sake of parsimony, the model is considered a main effects, or additive model.

The main effects regression results are presented in Table 2. Passive leisure is not significantly related to depression whereas the remaining leisure variables, active ($\beta = -0.09$), social ($\beta = -0.07$) and taking a vacation ($\beta = -0.07$), are all significant and in the hypothesized directions (H1). Job demands were hypothesized to increase depression (H2) and three demands have statistically significant positive relationships with depression. Work spillover is the strongest predictor of depression ($\beta = 0.32$). Both professional demand variables, profit orientation ($\beta = 0.17$) and incivility amongst lawyers ($\beta = 0.09$), are also significant. Neither work hours nor work overload are significantly

<table>
<thead>
<tr>
<th>Variable name</th>
<th>$b$, ($\beta$)</th>
<th>t-value</th>
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</thead>
<tbody>
<tr>
<td>Work demands</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work hours</td>
<td>$0.00 (0.04)$</td>
<td>1.13</td>
</tr>
<tr>
<td>Work overload</td>
<td>$0.03 (0.04)$</td>
<td>1.07</td>
</tr>
<tr>
<td>Work spillover</td>
<td>$0.21 (0.32)$***</td>
<td>9.60</td>
</tr>
<tr>
<td>Profit orientation</td>
<td>$0.08 (0.17)$***</td>
<td>5.55</td>
</tr>
<tr>
<td>Incivility</td>
<td>$0.05 (0.09)$**</td>
<td>2.87</td>
</tr>
<tr>
<td>Job control over</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When hours worked</td>
<td>$-0.01 (-0.02)$</td>
<td>-0.61</td>
</tr>
<tr>
<td>How many hours worked</td>
<td>$-0.03 (-0.06)$*</td>
<td>-1.89</td>
</tr>
<tr>
<td>Coping resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social support</td>
<td>$-0.00 (-0.00)$</td>
<td>-0.13</td>
</tr>
<tr>
<td>Passive leisure</td>
<td>$-0.00 (-0.02)$</td>
<td>-0.66</td>
</tr>
<tr>
<td>Active leisure</td>
<td>$-0.01 (-0.09)$***</td>
<td>-2.94</td>
</tr>
<tr>
<td>Social leisure</td>
<td>$-0.01 (-0.07)$*</td>
<td>-2.21</td>
</tr>
<tr>
<td>Vacation time</td>
<td>$-0.02 (-0.07)$*</td>
<td>-2.25</td>
</tr>
<tr>
<td>Control variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adequate income</td>
<td>$-0.03 (-0.06)$*</td>
<td>-1.94</td>
</tr>
<tr>
<td>Sex (male)</td>
<td>$-0.09 (-0.07)$**</td>
<td>-2.38</td>
</tr>
<tr>
<td>Years of experience</td>
<td>$-0.00 (-0.03)$</td>
<td>-0.87</td>
</tr>
<tr>
<td>Workaholism</td>
<td>$-0.02 (-0.04)$</td>
<td>1.10</td>
</tr>
<tr>
<td>$R^2$, $F$ (d.f.)</td>
<td>$0.32$, $25.16$ (16)$***$</td>
<td></td>
</tr>
</tbody>
</table>

*p < 0.05; ** p < 0.01; *** p < 0.001.
related to depression. Turning next to Hypothesis 3, one of the two job control variables is statistically significant. Control over how many hours worked (\(\beta = -0.06\)) reduces depression, as hypothesized, whereas lawyers’ control over when they work the hours that they do does not. Social support from co-workers is not significant in predicting depression, contrary to Hypothesis 4. Only two control variables are significant. Adequate income (\(\beta = -0.06\)) reduces depression as expected and women report significantly higher levels of depression than men (\(\beta = -0.07\)), also as expected.

**Discussion and conclusions**

This article set out to examine whether leisure is an effective coping resource by testing and extending Karasek’s job-demand-control (JDC) model. The results of this study suggest that passive leisure is not effective in reducing depression. Engaging in relaxed, solitary pursuits after the stress of daily work demands was expected to be beneficial to one’s mental health. Iso-Ahola (1997) suggests, however, that passive leisure may be ineffective and potentially unhealthy because it reflects a form of ‘escapism’ from daily stressors that, if left unchecked, may turn into apathy and can undermine an active lifestyle, ultimately contributing to depressive symptoms. Future research might explore whether limited amounts of passive leisure are beneficial as a respite from the stresses of the day, whereas more extreme amounts, as Iso-Ahola (1997) suggests, are potentially detrimental to one’s well-being.

Leisure that involves more active or social activities is positively related to one’s mental health. This lends support to the programs that some employers offer to their employees, such as memberships to health clubs and promoting work-related social activities. In order for these programs to be effective however, employees must have sufficient free time from their work to participate and enjoy themselves in their leisure pursuits.

Taking a vacation also appears to be an effective coping resource in reducing depression. Future research might consider exploring the type of vacation (e.g. active, passive or social), and whether these different forms of vacation leisure have different relationships with wellness. In addition, how the length and frequency of one’s vacation (i.e. one long break from work versus several shorter breaks) benefits one’s mental health is another interesting area to explore in future research. Sonnentag (2003), for example, found that individuals benefit from shorter rest periods in the evenings throughout their work week and she suggests that this daily recovery from work may be helpful in supplementing the beneficial, but less frequent, effect of vacations.
As well, it is important to highlight the findings that relate to Karasek’s model. Starting first with the job demands, three of the five job demands are related to depression as hypothesized. Although work hours and work overload were not significant, work spillover and the professional demands of both profit and incivility appear related to psychological strain. Spillover is the strongest coefficient in the model, lending support to the argument that careers that are demanding interfere with being able to have a recuperative and separate home environment (Brockman, 1994; Cropley & Millward-Purvis, 2003).

Both professional demands variables, the profit orientation of law and uncivil attitudes amongst lawyers, were significant in predicting depression. The business of law, with its ongoing pursuit of monetary profit to ensure business stability and growth, as well as general feelings of incivility, is related to lawyers’ psychological strain. The profession is driven by business concerns and a 24/7 mentality, which may exacerbate the strain and pressure of collegial interactions. These two items are positively correlated ($r = .25$), which suggests that the competitive, profit driven nature of law is correlated with the uncivil interactions among lawyers. While these measures were developed to capture occupation-specific demands associated with practicing law, it is arguable that many other workers also experience similar pressures as well. Future research might examine the prevalence and impact of these demands in other occupations and work settings.

Hours worked and work overload are not related to depression. Others have reported similar patterns of findings where although professionals report working extremely long hours, they do not necessarily experience them as harmful (Wallace, 2001). Perhaps working long hours is not necessarily a negative strain for lawyers because it is a well-known and expected part of being successful. Wallace (2001) argues that the number of hours lawyers work may not be so important in understanding their work attitudes and responses as whether or not lawyers feel that their work demands are interfering with other aspects of their life, which is consistent with the findings related to work spillover. Similarly, the finding that work overload is not related to depression suggests that the sheer volume of workload is not detrimental, rather the inability to psychologically ‘shut down’ after work (work spillover) is important to their mental health.

Turning next to job control, it appears that control over deciding how many hours to work is significant in reducing depression, whereas control over when one works is not. Neither type of job control was effective in buffering the effects of job demands on depression, however, which is a key consideration of the JDC framework. That is, job control by itself is positively related to worker well-being, but it may not be an effective strategy to reduce the negative impact of job demands.
Lastly, the findings for social support suggest that emotional support from one’s colleagues is not significantly related to depression. This finding may reflect the general malaise characterized as prevalent throughout the legal profession (Keeva, 2006; Kessler, 1997; Rhode, 2000). Due to incivility, or even simply apathy, one’s co-workers, who are likely experiencing the same workplace demands and stressors, may not have any emotional support and understanding left at the end of the day to offer one another. As Karasek et al. state: ‘In times of overall group crisis, little “solace” will be found from others who are exposed to the same problem’ (1982: 195). Future research might consider the extent to which one’s support system, in this case co-workers, are also exposed to high levels of stress and as a result whether they are able to offer beneficial support to one another (Wallace, 2005).

In conclusion, the findings suggest that leisure activities are beneficial to professionals’ well-being. This is a unique extension of the JDC theory that incorporates leisure as an alternate coping resource. While perhaps not following the traditional model of decision latitude, ensuring that employees have enough time and personal control to take a vacation and engage in active or social leisure activities appears beneficial. Although not explored in this article, whether an individual has more or less personal control over when and how they pursue leisure may be of interest, and would extend JDC theory beyond its existing paradigm.

This article supports a growing body of published literature that generally theorizes that to maintain employee health and wellness, leisure can be an effective anti-stress measure in which employees may be healthier and in the long term possibly more productive (Haworth & Lewis, 2005; Schneider & Iwasaki, 2003; Trenberth & Dewe, 2005). A sense of belonging, support and friendship from interacting with others in a social or interpersonal way is arguably a psychologically healthy outcome of leisure pursuits.

In closing, the limitations of this study should be noted. First, this study focuses on law firm lawyers. This may limit generalizations to lawyers in other types of work settings and to other professions and occupations. Second, the issue of causality is a concern with cross-sectional data. While Karasek’s (1979) model led us to hypothesize that by conceptualizing leisure activities as a coping resource they would contribute to lessening one’s depression, alternatively it may be argued that more depressed individuals are less likely to participate in leisure activities. Longitudinal analyses are needed to better understand the causal ordering between the use of coping resources and well-being. Third, due to the high demands placed on firm lawyers, those with extremely high levels of work-related job demands may not have had time to complete the survey. Lastly, it might be argued that law
firm lawyers who are extremely depressed or overstressed may not have completed the survey or may no longer be actively practicing law. This point appears tenuous at best since a number of respondents who completed the survey appear to be suffering from clinical depression, which they reported in the open-ended section at the end of the questionnaire. For example:

I can’t believe how negatively this profession has affected me emotionally and psychologically. I never thought I’d ever have to go to counseling but here I am going to counseling because I’m depressed and suicidal . . .

. . . I am answering this questionnaire having just come off a medical leave as a result of a depression . . . Had I answered these same questions eight months ago, I suspect the answers would have been quite different.

These comments illustrate how practicing law can be truly an all-encompassing and heavily demanding line of work that can negatively impact on lawyers’ well-being. Our findings show that even though none of the leisure variables buffer the harmful effects of job demands on depression, participating in active and social leisure activities or taking a vacation are important in reducing depression. Organizations that encourage and support their employees taking vacations, participating in social activities and taking time for leisure may find they have happier employees and a healthier work environment.

Acknowledgement

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Note

1 Supervisor support is the other popular form of work based social support. It is not examined in this study because it is not relevant to this particular sample. Lawyers, much like academics, do not usually have someone who they can identify as their supervisor.

References


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