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Work intensity, emotional exhaustion, and life satisfaction: the moderating role of psychological detachment

ABSTRACT

Purpose - The purpose of this research was to examine a moderated mediation model that investigated the moderating role of psychological detachment in the relationship between work intensity and life satisfaction via emotional exhaustion.

Design/methodology/approach - Data were collected from 149 hospital-based nurses who completed a questionnaire about working conditions and individual outcomes. The data were analyzed using hierarchical moderated regression and bootstrapping techniques.

Findings - The results confirm that work intensity is negatively related to life satisfaction via emotional exhaustion. The results also demonstrate that psychological detachment diminishes the negative influence of emotional exhaustion on life satisfaction. The conditional indirect effect model shows that the indirect relationship between work intensity and life satisfaction is strongest at low psychological detachment.

Research limitations/implications - This research advances our understanding of the negative work and non-work implications associated with work intensity. The key limitation of this research was the cross-sectional dataset. HRM researchers should seek to replicate and expand the results with multi-wave data to extend our understanding of the implications of work intensity.

Practical implications - HRM practitioners need to begin implementing measures to address work intensity in order to thwart its negative effects. HRM practitioners need to implement policies and procedures that limit the intensity of work demands to promote positive employee work and non-work outcomes.

Originality/value - This is the first study to show that work intensity can influence life satisfaction through emotional exhaustion. Contrary to most recovery research, this research is also among the first to focus on the moderating role of psychological detachment, especially within a conditional indirect effect model.

Keywords: Work intensity, psychological detachment, exhaustion, life satisfaction

Article classification: Research paper

INTRODUCTION

Despite the increasing prevalence of intense work demands (Brown, 2012), this phenomenon has garnered limited attention in the literature. Drawing on prior conceptualizations of work intensity (Burke *et al.*, 2010; Green, 2004), we define work intensity as a job demand that reflects the required pace, effort, and affective energy to perform work tasks and duties. Specifically, work intensity is a distinct albeit under-researched construct that reflects aspects of both quantitative (i.e., the amount of work that one must complete) and qualitative (i.e., the mental difficulty associated with work activities) workload. While work intensity research is nascent, the research that has examined the impact of work intensity on employee outcomes has resulted in mixed findings (Burke *et al.*, 2010; Hewlett and Luce, 2006). For example, Burke *et al.* (2010) show that work intensity is related to more hours worked, higher job stress, and a higher workload. In contrast, Hewlett and Luce (2006) report that employees who work intense work hours often report that they love their job and enjoy the thrill of their challenging work. These mixed results underscore the need for a better understanding of this phenomenon to help HRM practitioners effectively manage work intensity. In response, the purpose of this paper is to understand how, why, and under what conditions work intensity influences employee outcomes.

In particular, this research proposes a conditional indirect effect model that examines the moderating role of psychological detachment in the relationship between work intensity and life satisfaction via emotional exhaustion. Drawing on the job demands-resources (JD-R) model (Demerouti *et al.*, 2001), we posit that work intensity consumes significant personal resources, thereby leading to emotional exhaustion. Exhausted employees have few personal resources to expend on non-work activities and in turn do not feel satisfied with their life. The impact of work intensity on employee outcomes is important to examine because a dearth of research focuses on

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the potential negative outcomes of work intensity, but also because life satisfaction has been shown to have spillover effects on job attitudes and behaviors (Erdogan *et al.*, 2012). These objectives enable HRM researchers not only to better understand the effects of the growing trend of work intensity on employee outcomes, but this research also provides HRM practitioners with specific guidance on how to address work intensity to ensure positive employee experiences in the workplace. Moreover, this research examines the moderating role of psychological detachment because studies have shown that temporary detachment from work can have powerful effects in terms of helping employees to recover from stressful work experiences (Sonnentag and Fritz, 2015). In doing so, this research highlights the importance of practically creating an environment that embraces psychological detachment by HRM practitioners for all employees.

This research makes several important contributions to the extant literature. First, it examines how work intensity can lead to emotional exhaustion and subsequently decrease life satisfaction. As alluded, this line of inquiry is important because extant studies show that the effects of work intensity are mixed (Burke *et al.*, 2010; Hewlett and Luce, 2006), thereby resulting in an incomplete account of how work intensity truly influences employee outcomes. This is an important gap in the literature for HRM researchers because work intensity has become more prevalent for employees globally (Brown, 2012). In doing so, we advance our understanding of the key work and non-work outcomes associated with intense work demands, especially because most research has only focused on work outcomes without considering the potential spillover effect of work intensity into life outside the workplace. Moreover, this research also addresses a need identified by Sonnentag *et al.* (2010) to "...expand the scope of outcome variables" (p. 973) in the work demands and employee outcomes relationship.

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Second, this research demonstrates that psychological detachment moderates the relationship between emotional exhaustion and life satisfaction. This contrasts with the extant literature that has mostly focused on the direct effects of detachment on exhaustion and life satisfaction (Sonnentag and Fritz, 2015). By focusing on the moderating effect of psychological detachment, we are able to show that highly exhausted employees who do not psychologically detach from work are much less satisfied with their life compared to employees who are able to psychologically detach from their work. This research has significant implications for HRM researchers because it shows that exhausted employees who do not psychologically detach from the workplace experience a significant negative spillover effect that results in less satisfaction with their life in general. As a result, this research deepens our understanding of the effects of job demands.

Third, the conditional indirect effect model shows that low psychological detachment is significant in terms of strengthening the negative indirect effect of work intensity on life satisfaction. In other words, this model offers a much more sophisticated and complete account of the complexity of organizational life for HRM researchers by highlighting some of the negative effects of work intensity – that is, intense work demands positively relate to emotional exhaustion; in turn, this emotional exhaustion leads to less satisfaction with life, especially among employees who do not psychologically detach from the workplace. Indeed, this model provides a more nuanced account of the harmful influence of work intensity on both work and non-work outcomes when employees are unable to psychologically detach from work activities. In doing so, this research highlights the theoretical implications of this negative trickle-effect of work intensity for HRM researchers, thereby helping them to better guide HRM practitioners on the effects of work intensity. It also results in significant implications for HRM practitioners

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because it encourages them to proactively prevent intense work demands among employees to foster positive employee outcomes.

In the following sections, the hypotheses are developed followed by a discussion of the methods, analytical procedures, and results. The theoretical and practical contributions, limitations, and directions for future research are discussed afterwards.

WORK INTENSITY AND THE JOB DEMANDS-RESOURCES MODEL

Jobs are characterized by demands and resources that either impede or facilitate general employee well-being, respectively. Specifically, the JD-R model posits that job demands and resources are key determinants of employee well-being (Demerouti *et al.*, 2001). Job demands can be defined as the physical, social, psychological, or organizational job-related factors that require considerable sustained effort, while job resources refer to job-related factors that stimulate work-related goals, foster personal growth and development, and mitigate negative implications resulting from job demands (Bakker and Demerouti, 2007). The JD-R model proposes two core propositions: the *health-impairment process* states that job demands result in burnout because of the physical and psychological costs that derive from the depletion of personal resources that are exerted to attend to the job demands (Bakker and Demerouti, 2007). In contrast, the *motivation-enhancing process* contends that job resources can motivate employees through support and guidance, thereby resulting in high work engagement (Bakker and Demerouti, 2007). Therefore, positive well-being results from weak job demands and strong job resources, while negative well-being results from strong job demands and weak job resources.

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This research draws on the JD-R model to examine the impact of work intensity on employee work and non-work outcomes for several reasons. First, the dearth of research on work intensity is concerning for theoretical and practical reasons, especially because there is a growing prevalence of intense work demands (Brown, 2012). More specifically, our limited understanding of the impact of work intensity has hindered practical recommendations based on sound research in order to help organizations appropriately manage intense work demands. In other words, managers have limited guidance on how to address intense work demands. Currently, managers might permit intense work demands if they believe that positive outcomes manifest from such behaviors, but if new research continues to support prior research that shows that negative implications result from intense work demands then managers can look to the literature for actionable recommendations on how to address such harmful demands. Second, this research responds to a contention by numerous researchers who posit that it is difficult to disentangle the effects of specific work demands because most research examines the effect of several job demands in one measure (Shantz *et al.*, 2013). Stated differently, most studies examine job demands from a holistic perspective, which limits our understanding of the exact effects of job demands, especially because recent studies have suggested that job demands point to different outcomes (Crawford *et al.*, 2010; Tadić *et al.*, 2015). In line with these studies, we focus on work intensity to allow for a more nuanced understanding of how work intensity specifically influences emotional exhaustion and life satisfaction. Third, as mentioned, research on the consequences resulting from work intensity has yielded conflicting results (Burke *et al.*, 2010; Hewlett and Luce, 2006). In other words, some studies have shown that work intensity can result in positive employee outcomes, while other studies show that work intensity can lead to negative consequences. These mixed results point to the likelihood of moderating and mediating

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variables that have, thus far, received scant research attention. Stated differently, extant studies have yet to truly capture some of the true complexity of organizational life given the dearth of sophisticated models that examine how work intensity shapes employee outcomes.

Drawing on the JD-R model, we hypothesize that work intensity leads to emotional exhaustion that in turn negatively influences life satisfaction. Psychological detachment is posited to moderate the relationship between emotional exhaustion and life satisfaction. Finally, the conditional indirect effect model proposes that low psychological detachment strengthens the negative indirect effect of work intensity on life satisfaction through emotional exhaustion. The conceptual model is presented below (Figure 1).

Insert Figure 1 About Here

Work Intensity, Emotional Exhaustion, and Life Satisfaction

According to the health-impairment process (Bakker and Demerouti, 2007), job demands deplete personal resources that subsequently lead to burnout (Bhanugopan and Fish, 2006). The core dimension of burnout is emotional exhaustion – that is, feelings of being emotionally overextended and drained (Maslach and Jackson, 1981). Based on this line of research, we theorize that work intensity requires employees to invest significant personal resources that result in a depleted personal resource base. The *control model of demand management* (Hockey, 1993) further explains that employees often use performance-protection strategies (e.g., sympathetic activation, increased subjective effort) to protect their performance levels despite the intense nature of their work; however, these strategies tend to be associated with greater psychological and physiological costs (Hockey, 1993). Therefore, employees usually have fewer personal

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resources to cope with their intense work demands and in turn these employees experience high levels of emotional exhaustion.

Several studies have explored how job demands and resources influence employee outcomes beyond burnout and engagement (Huynh *et al.*, 2014; Rodwell *et al.*, 2011); however, we advance the extant research with an examination of how work intensity indirectly influences non-work outcomes via work outcomes. Specifically, we focus on an important non-work outcome that has received limited attention in employee research – that is, life satisfaction (Erdogan *et al.*, 2012). Life satisfaction reflects a cognitive judgment about life quality according to self-set standards and criteria (Diener *et al.*, 1985; Diener, 2000). In accordance with work-life balance research (Valcour, 2007), we posit that employees who are emotionally exhausted experience low life satisfaction because these employees have few personal resources to expend on non-work activities that otherwise contribute to satisfaction with life. In sum, work intensity is posited to negatively influence life satisfaction via emotional exhaustion.

Hypothesis 1: Emotional exhaustion mediates the relationship between work intensity and life satisfaction.

The Moderating Role of Psychological Detachment

In recent years, recovery research has garnered considerable interest among researchers and practitioners (Sonnetag and Fritz, 2015), particularly because of the critical role of recovery activities in helping employees manage their work life. Indeed, an important recovery process is psychological detachment – that is, the psychological detaching of oneself from work (Sonnetag and Bayer, 2005). In other words, employees who psychologically detach must not be involved in work activities during this time, and employees must not be thinking about work-

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related issues during this recovery process (Sonnentag and Fritz, 2007). This conceptualization captures both the short-term, such as sleep and exercise, and long-term, such as vacation and leave, strategies. Although several studies examine the direct effects of psychological detachment on employee outcomes (Derks *et al.*, 2014; Sonnentag, 2012), this research examines the moderating role of psychological detachment in the emotional exhaustion and life satisfaction relationship.

According to recovery research, psychological detachment has a positive impact on employee well-being because a temporary detachment from work allows employees to ‘let-go’ of work thoughts and activities (Sonnentag and Fritz, 2015). Conservation of resources (COR) theory helps to explain the moderating role of psychological detachment in the exhaustion and life satisfaction relationship. COR theory posits that “...individuals strive to obtain, retain, protect, and foster those things that they value” (Hobfoll, 2001, p. 341). In this process, individuals try to conserve a variety of resources, including those that are economic and psychological. The theory defines resources as those “objects, personal characteristics, conditions, or energies that are valuable in their own right or that are valued because they act as conduit to the achievement or protection of valued resources” (Hobfoll, 2001, p. 339). COR theory implies that individuals will try to conserve resources that are lost or exhausted in doing intense work; psychological detachment offers one such strategy. That is, in being psychologically detached, employees not only refrain from actively doing work (e.g., checking voicemails, checking and responding to emails from home, not being on-call), but also refrain from not thinking about job-related issues (e.g., not thinking about how to deal with a work-related issue the next day) (Sonnentag, 2012). Therefore, these employees are able to rebuild their personal resource base.

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Consequently, the replenishment of resources results in improved non-work outcomes because employees have more personal resources for non-work activities. An examination of the 74 resources listed by Hobfoll (2001, p. 242) reveals that, if conserved through psychological detachment, resources can help in reducing exhaustion and increasing life satisfaction. These include: “time for adequate sleep”, “good marriage”, “free time”, “time with loved ones”, “stamina/endurance”, “intimacy with at least one friend”, “help with tasks at home”, “companionship”, and “feeling that my life is peaceful” (Hobfoll, 2001). It is also important to note that without psychological recovery, through processes such as psychological detachment, resource losses can spiral, further deteriorating life satisfaction. In explaining resource loss spiral, COR theory posits that “...those who lack resources are more vulnerable to resource loss, but the initial loss begets future loss” (Hobfoll, 2001, p. 354). As a corollary, the theory also contends that resource gains can also spiral, but the loss is more potent and impactful than the gains. Psychological detachment can conserve on resource loss, help with exhaustion, and build the base necessary for resource gains and spirals, thereby allowing for improved life satisfaction levels. Furthermore, according to Newman *et al.* (2013), life satisfaction is a key well-being outcome of recovery experiences, including psychological detachment. Leisure activities can help with psychological detachment, exhaustion, and the conservation of resources. Low detachment levels imply less time and “psychological space” for leisure and resource gain, and would likely result in a negative impact on life satisfaction. On the other hand, individuals who are able to more successfully detach themselves would benefit in improved life satisfaction levels (Park & Fritz, 2015).

In summary, this line of reasoning indicates that employees who are unable to psychologically detach from work, experience further personal resource depletion because the

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thoughts and actions of these employees continue to be centered on work. As a result, these exhausted employees who are unable to psychologically detach from work tend to experience low life satisfaction because most of their personal resources are devoted towards thinking and doing work tasks leaving limited resources for non-work activities.

Hypothesis 2: Psychological detachment moderates the relationship between emotional exhaustion and life satisfaction, such that emotional exhaustion is more negatively related to life satisfaction when psychological detachment is low compared to when psychological detachment is high.

The Role of Psychological Detachment in the Work Intensity and Life Satisfaction Relationship

Building on the aforementioned arguments, this research advances a conditional indirect effect model by suggesting that psychological detachment moderates the indirect effect of work intensity on life satisfaction via emotional exhaustion. Specifically, we posit that the negative indirect relationship between work intensity and life satisfaction is strongest among employees who are unable to detach from work; however, this relationship is theorized to weaken as employees experience some psychological detachment from work activities.

In line with the JD-R model (Demerouti *et al.*, 2001), employees that experience high levels of work intensity tend to feel more emotionally exhausted from work because the intensity of their work consumes significant personal resources. In turn, employees have few resources for other activities in their non-work life domains, thereby decreasing their satisfaction with life according to COR theory (Hobfoll, 2001). Based on recovery research, we posit that employees

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who are unable to psychologically detach from work, experience constant work-related thoughts and also choose to participate in actions that are work-related (Sonnentag and Fritz, 2015). As a result, employees continuously exert personal resources devoted towards work activities, thereby allowing for few personal resources for non-work activities. Indeed, employees who become exhausted from intense work demands, but are unable to psychologically disconnect from work are most apt to experience significant resource depletion (Sonnentag and Bayer, 2005). In turn, these employees are unable to derive satisfaction with other life domains because they have few personal resources to foster satisfaction with life in general.

Hypothesis 3: Psychological detachment moderates the strength of the relationship between work intensity and life satisfaction via emotional exhaustion, such that the negative relationship between work intensity and life satisfaction via emotional exhaustion is strongest when psychological detachment is low compared to when psychological detachment is high.

METHOD

Sample

A nursing sample was selected for this research because there is considerable evidence that nursing staff have been facing increasing work demands (Xanthopoulou *et al.*, 2007). Studies further demonstrate that these heavy work demands are linked to higher levels of burnout among nurses (e.g., Montgomery *et al.*, 2015; Wang *et al.*, 2015). Therefore, it is without surprise that a 25-year review of burnout among nurses clearly indicates that nurses are particularly vulnerable to burnout (Adriaenssens *et al.*, 2015). Given the harmful effects of burnout on employees, there is not only an urgent need to better understand the spillover effect

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of these intense work demands on nurses outside of their work environment, but it also points to the need to advance our understanding of the potentially beneficial role of “switching off” from work. A random sample of 500 nurses was selected from a regional Canadian hospital to participate in this research. These nurses were invited to complete an anonymous questionnaire resulting in 192 responses (38.4% response rate). Indeed, this response rate is in line with other research examining well-being in the nursing profession (e.g., García and Calvo, 2012). Listwise deletion was used to address the missing data, which resulted in a sample of 149 respondents. The demographic characteristics of the sample include: 96.0% female, 76.5% were employed full-time, and 51.0% had supervisory duties. On average, employees had organization tenure of 10.40 years (SD = 8.98), and worked an average of 39.12 hours per week (SD = 8.97).

Measures

Work intensity. This construct was assessed with a 5-item scale ($\alpha = .83$). Some items were taken from Hewlett and Luce (2006), while the others were taken from Burke *et al.* (2010). Items were preselected based on their applicability to the current work context. Respondents were asked to describe their current job on a 5-point Likert scale ranging from 1 (does not describe my job at all) to 5 (describes my job perfectly). The items were: “Fast-paced work under tight deadlines”, “More work than I can complete”, “Large scope of responsibility that amounts to more than one job”, “Work demands a lot from me emotionally”, and “The work is so intense that it is mentally tiring”.

Emotional exhaustion. This construct was measured using a 9-item scale ($\alpha = .94$) taken from Maslach and Jackson (1981). Respondents indicated how frequently they experienced each

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item on a 7-point Likert scale ranging from 1 (never during the past year) to 4 (a few times a month) to 7 (daily). A sample item is: “I feel emotionally drained from my work”.

Psychological detachment. Psychological detachment from work was measured using the 4-item scale ($\alpha = .85$) from the Recovery Experience Questionnaire developed by Sonnentag and Fritz (2007). The items were rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). A sample item is: “I distance myself from work”.

Life satisfaction. Life satisfaction was measured using a 5-item scale ($\alpha = .93$) developed by Diener *et al.* (1985). Respondents indicated their agreement with each item on a 7-point Likert scale anchored by 1 (strongly agree) to 7 (strongly disagree). To facilitate the interpretation of the results, each item was reverse-scored so higher scores represented greater levels of life satisfaction. A sample item is: “I am satisfied with my life.”

Controls. Several personal and work situation characteristics were controlled because past research has reported that these variables are related to work intensity and well-being (Burke, 2009). Gender (1 = male, 0 = female), employment status (1 = full-time employment, 0 = part-time employment), supervisory duties (1 = yes, 0 = no), organization tenure, and hours worked were controlled. Work hours were controlled because we wanted to separate the effects of work hours from work intensity, such that the former is a quantitative work demand that has been the focus of much previous research, but its effects are very different from work intensity (Burke *et al.*, 2010).

Analytical Strategy

Bootstrapping procedures were used to test for the simple mediation proposed in Hypothesis 1. Next, we tested for the moderating role of psychological detachment in the

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relationship between the emotional exhaustion and life satisfaction using hierarchical moderated regression (Hypothesis 2). The controls, emotional exhaustion, and psychological detachment variables were mean-centered prior to the hierarchical moderated regression analysis. The final moderated mediation model (Hypothesis 3) was tested using bootstrapping procedures using Hayes' (2013) PROCESS macro. The exhaustion and psychological detachment variables were mean-centered prior to this analysis as well.

Confirmatory Factor Analysis

Confirmatory factor analysis was used to assess the factor structure of the 5-item work intensity scale using AMOS. The results demonstrate an acceptable model fit (Hu & Bentler, 1999): $\chi^2/df = 2.29$, Confirmatory Fit Index (CFI) = .98, Tucker-Lewis Index (TLI) = .95, and Root-Mean-Square Error of Approximation (RMSEA) = .09. Confirmatory factor analysis on the full 4-factor measurement model was also conducted to assess for discriminant validity. The initial model resulted in the following model fit: ($\chi^2/df = 2.24$, CFI = .89, TLI = .88, RMSEA = .09). Based on the modification indices, we co-varied one set of error terms because these items were very similar (exhaustion items 4 and 8) resulting in an acceptable model fit: $\chi^2/df = 1.97$, CFI = .91, TLI = .90, and RMSEA = .08.

RESULTS

The descriptive statistics, correlations, and Cronbach's alphas are presented in Table 1. The results show that work intensity is positively correlated with emotional exhaustion ($r = .59$, $p < .01$), employment status ($r = .21$, $p < .01$), hours worked ($r = .21$, $p < .01$), and negatively related to life satisfaction ($r = -.17$, $p < .05$). Emotional exhaustion is negatively correlated with

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psychological detachment ($r = -.18, p < .05$) and life satisfaction ($r = -.32, p < .01$). Psychological detachment is negatively correlated with supervisory duties ($r = -.19, p < .05$). Life satisfaction is negatively correlated with employment status ($r = -.23, p < .01$) and hours worked ($r = -.20, p < .05$).

Insert Table 1 About Here

Mediation Results

Bootstrapping was used to test for the significance of the indirect effect of work intensity on life satisfaction via exhaustion using 5,000 bootstrap samples (Table 2). The bootstrapped confidence intervals (CI) overcome problems associated with the Sobel test (MacKinnon *et al.*, 2004). The bootstrapping results show that a bootstrapped 95% confidence interval around the indirect effect did not contain zero ($-.30, [LLCI = -.58, ULCI = -.06]$), thereby supporting Hypothesis 1.

Insert Table 2 About Here

Moderation Results

Hypothesis 2 states that psychological detachment moderates the relationship between emotional exhaustion and life satisfaction (Table 3). Using moderated regression, we found that psychological detachment significantly interacts with emotional exhaustion to predict life satisfaction ($B = .21, p < .01$). The simple slopes analyses demonstrate that the effect of emotional exhaustion on life satisfaction was significant at low ($-.42, [LLCI = -.62, ULCI = -.24]$) and

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moderate levels of psychological detachment (-.23, [LLCI = -.38, ULCI = -.08]), but not at high levels (-.04, [LLCI = -.25, ULCI = .18]) (Table 4). Indeed, the plotted interaction (Figure 2) shows that at high levels of emotional exhaustion, employees who participated in low levels of psychological detachment experienced lower levels of life satisfaction compared to employees who participated in greater psychological detachment. Therefore, the results support Hypothesis 2.

Insert Tables 3 and 4 and Figure 2 About Here

Moderated Mediation Results

The conditional indirect effect model stated that psychological detachment moderates the strength of the relationship between work intensity and life satisfaction via emotional exhaustion (Table 5). Drawing on 5,000 bootstrap samples and a 95% confidence interval, the conditional indirect effect of work intensity on life satisfaction via emotional exhaustion was examined at three levels of psychological detachment: 1 standard deviation (SD) below the mean, at the mean, and 1 SD above the mean. The bootstrapping results provide support for the indirect effect of work intensity on life satisfaction through emotional exhaustion at low (-.45, [LLCI = -.75, ULCI = -.13]) and moderate (-.26, [LLCI = -.52, ULCI = -.03]) levels of psychological detachment, but not at high levels of psychological detachment (-.07, [LLCI = -.34, ULCI = .22]). Thus, Hypothesis 3 is supported.

Insert Table 5 About Here

Post-Hoc Analysis

Since some employees may seek to proactively manage their stress levels through recovery activities to avoid emotional exhaustion, a post-hoc analysis of this possible moderating effect was explored. Using moderated regression, the results demonstrate that psychological detachment does not moderate the relationship between work intensity and emotional exhaustion ($B = -.06, ns$) (Table 6). Therefore, these results demonstrate that psychological detachment only has a moderating effect once employees experience emotional exhaustion that subsequently shapes life satisfaction.

Insert Table 6 About Here

DISCUSSION

There has been a growing body of research that investigates employee well-being given the importance of well-being for employees and organizations (Agarwal, 2014; Diener *et al.*, 1999). Although studies have demonstrated that job demands have key implications for employee well-being (Bhanugopan and Fish, 2006; Tadić *et al.*, 2015), a dearth of research has explored the impact of specific job demands, such as work intensity, on work and non-work employee outcomes among HRM researchers. The results of this study demonstrate that work intensity was positively associated with emotional exhaustion and in turn was negatively related to life satisfaction. Moreover, psychological detachment moderated the relationship between emotional exhaustion and life satisfaction. The results also showed that the negative indirect

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effect of work intensity on life satisfaction was strongest at low psychological detachment compared to moderate and high psychological detachment. The research and practical HRM implications along with the limitations of this research and future research directions are discussed next.

Research Contributions

First, this research advances our understanding of the impact of work intensity on both work and non-work employee outcomes for HRM researchers. This is a particularly important endeavor because most work intensity studies focus on work outcomes without considering the potential spillover effects on home life. This research shows that work intensity has a positive relationship with emotional exhaustion and an indirect negative effect on life satisfaction. Stated differently, in line with the JD-R literature (Crawford *et al.*, 2010), this research shows that emotional exhaustion mediates the negative relationship between work intensity and life satisfaction. In doing so, this research counters some prior research that indicates that positive employee outcomes result from work intensity (Hewlett and Luce, 2006). One possible explanation that can account for this difference is that work intensity might be welcomed by a specific group of employees, such that high-status and high-earning professionals might perceive work intensity as a challenge stressor compared to a hindrance stressor (Hewlett and Luce, 2006). Indeed, recent research suggests that some job demands might be perceived as challenges that can foster positive outcomes, while others might be perceived as hindrances that can foster negative outcomes (Crawford *et al.*, 2010). The current research suggests work intensity can be a hindrance demand among nurses because the results show that work intensity has a negative impact on work (high emotional exhaustion) and non-work (low life satisfaction) employee

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outcomes. In doing so, we contribute to an important and much-needed stream of HRM research that has resulted in mixed findings by providing further support for the negative impact of work intensity on employee outcomes. This is a particularly important research area for HRM researchers because they have a fundamental role in supporting and guiding HRM practitioners on how to effectively manage intense work demands, especially given its increasing prevalence.

Second, this study responds to a recent contention by Sonnentag *et al.* (2010) who state: “psychological detachment is a particularly promising and important moderator because it is largely under the influence of employees themselves” (p. 966). In this research, we depart from extant studies that have shown that psychological detachment predicts emotional exhaustion and life satisfaction (Sonnentag and Fritz, 2015). Instead, we focus on the moderating role of psychological detachment in the exhaustion and life satisfaction relationship, which is an important contribution to HRM research because it shows that psychological detachment has a very important role in shaping employees’ work experiences by examining the effect of emotional exhaustion on life satisfaction. Specifically, the results show that psychological detachment moderates the relationship between emotional exhaustion and life satisfaction, such that emotionally exhausted employees who did not psychologically detach from work, experienced the lowest levels of life satisfaction compared to employees who did participate in some psychological detachment.

However, the results further show that high psychological detachment does not have a significant impact on lessening the harmful impact of emotional exhaustion on life satisfaction. Rather, this negative effect is only reduced among employees who participate in moderate levels of psychological detachment. One possible explanation for this finding is that employees who are extremely exhausted might be unable to psychologically detach from work itself in a meaningful

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way. In a similar vein, Howard (2015) recently found that employees who experienced negative workplace conflict were unable to recharge because they could not refrain from work-related thoughts while “off the clock”. Moreover, it is important to note that the post-hoc analyses further demonstrate that psychological detachment did not significantly moderate the relationship between work intensity and exhaustion. To explain, employees who experience work intensity might be unable to psychologically detach from work when faced with intense work demands because there is too much pressure that consequently does not permit detachment due to these intense work demands. In support, Smit (in press) explains that some employees who have goals with high valence can experience difficulties detaching from the workplace.

In essence, these findings show that psychological detachment does not moderate the relationship between stress and work strain, but does moderate the relationship between work strain and non-work outcomes. This research advances the stressor-detachment model (Sonnentag, 2010; Sonnentag and Fritz, 2015) by separating the work strain/well-being dimension into two different outcomes: work strain and non-work well-being. That is, job stressors impact work strain that subsequently influences non-work well-being. In particular, we show that psychological detachment does *not* have a moderating role in the work intensity and work strain relationship, but *does* influence the work strain and non-work well-being relationship. This research is important for the HRM community because it suggests that specific policies and practices that foster psychological detachment can help to reduce the negative implications of strain-based experiences on non-work outcomes.

Third, the results show that psychological detachment moderates the strength of the negative indirect relationship between work intensity and life satisfaction via emotional exhaustion, such that low psychological detachment strengthened this negative indirect effect.

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Stated differently, employees who were unable to psychologically distance themselves from work were most apt to experience the negative impact of intense work demands. Specifically, employees who experienced intense work demands felt greater emotional exhaustion from work; subsequently, when these emotionally exhausted employees did not psychologically detach from work at all, they felt the lowest levels of life satisfaction. These results point to the harmful effect of not being able to psychologically detach from work by showing that employees who were unable to detach from work, experience a much greater spillover effect of intense work demands and emotional exhaustion on their overall life satisfaction. These results not only bring together the job demands, recovery, and well-being literatures for HRM researchers, but it corroborates prior research that shows intense work demands can have a harmful influence on work *and* non-work employee outcomes. That is, intense work demands have a pervasive negative effect on multiple facets of an employee's life, which is important for HRM academics to better understand the implications of work intensity on organizational life. In sum, this conditional indirect model advances extant research by providing a much more nuanced account of the importance of psychological detachment when employees are faced with intense work demands. In doing so, this research advances extant research with a much more complete account of the complexity of how work intensity shapes employee outcomes. Nevertheless, there is more research that continues to be needed to build this growing area of research, especially for HRM researchers who must provide sound research-based insights to help create more positive organizational experiences.

Limitations and Future Research Directions

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Similar to other extant studies on detachment (Barber and Jenkins, 2014), the data was collected from the same source and at one point in time, thereby potentially raising possible common method concerns (Podsakoff *et al.*, 2003). Moreover, this data was collected from a single organization in Canada, thereby limiting its generalizability to other organizational contexts. However, Conway and Lance (2010) explain that self-report measures are appropriate in specific circumstances. In this research, we used self-report measures because this procedure captures covert thoughts, feelings, and behaviors related to work demands, recovery, and well-being that cannot be completely captured with other reports. Furthermore, a Harman single factor analysis showed that only 28% of the variance was explained by a single factor, suggesting that common method variance may not be a problematic issue.

Future research, however, can complement the current study with data from multiple sources, such as co-workers or supervisors. Although the JD-R model offers significant theoretical support for the causal direction of the hypothesized relationships (Demerouti *et al.*, 2001), HRM researchers should collect data at multiple points to provide additional support for the work intensity, exhaustion, and life satisfaction relationship. In any case, several procedures were integrated to limit common method concerns, such that non-relevant items were included in the survey to psychologically separate the constructs, the rating scales were counter-balanced, and participants were also instructed to answer the survey in an honest manner (Podsakoff *et al.*, 2003). Moreover, the presence of significant interactive effects further indicates that there are no significant common method concerns (Evans, 1985). Furthermore, since the data was collected from a sample of nurses, the findings might not necessarily generalize to other non-health related occupations. However, the JD-R model and this line of research provide strong support for these results across a range of occupations (Bakker and Demerouti, 2007). Similarly, the small sample

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size represents another limitation inherent in this research. That said, researchers must take care when drawing inferences from this research given the small sample and restricted focus on the nursing occupation, such that these limitations do somewhat restrict the applicability of these findings to other contexts. Future research should, however, replicate this research using larger, heterogeneous samples.

From a theoretical perspective, HRM researchers should further examine the specific conditions under which psychological detachment moderates the relationship between various indicators of job stressors and work well-being, and then the relationship between other indicators of work well-being and non-work well-being outcomes. In doing so, these researchers can provide sound practical insights to help HRM practitioners understand the implications of practices and policies geared towards helping employees psychologically detach from work. Moreover, while life satisfaction represents a core facet of subjective well-being, additional research is needed to expand our understanding of the influence of these processes to other cognitive and affective indicators of subjective well-being, such as domain satisfactions and emotional responses (Diener *et al.*, 1999; Diener, 2000). In doing so, HRM researchers can more accurately capture general “happiness” among people throughout the globe (Diener and Tov, 2005). This is an important endeavor that must be pursued because cross-cultural research shows that there are significant differences in life satisfaction in this world (Kacapyr, 2008), thereby resulting in significant implications for how HRM practitioners guide senior leaders in managing the workplace. In a similar vein, future research should seek to include a more comprehensive assessment of life satisfaction to advance our understanding of the implications of work intensity on employee outcomes. Finally, HRM researchers should also use a qualitative approach to

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address this research topic to obtain some in-depth and rich insights towards understanding the implications of intense work demands on the overall employee experience.

Practical Implications

Diener and Tov (2005) indicate that there are numerous policy interventions that must be considered when taking into account the role of subjective well-being (including life satisfaction) on the greater society. In line with these comments, we propose that policymakers must develop strict work legislation that prevents employees from being indirectly forced into performing jobs with extremely intense work demands. Specifically, there must be policies that prevent employees from being overworked and over-exhausted, as these employees cannot simply perform their best, thereby harming themselves, their organizations, and society in general. This is particularly important in specific life-dependent professions, such as nursing, whereby mistakes from exhaustion can lead to significant harmful medical and psychological implications. In line with OECD (2011), we simply need “better policies for better lives”.

Line managers and HRM practitioners need to avoid assigning intense work demands among employees because of the harmful implications on employee well-being. Specifically, line managers need to not only evaluate and adjust the pace, effect, and affect required of job tasks and duties, but should also discuss their evaluations with their employees to ensure that the appropriate adjustments are made. HRM practitioners might also consider using high-performance work systems to help manage and reduce intense work demands, as recent research shows that these HR systems are linked to higher subjective well-being and lower burnout (Fan *et al.*, 2014).

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Furthermore, employees need to learn how to ‘switch-off’ from work when away from the workplace. HRM practitioners need to educate employees on the importance of encouraging employees to take personal responsibility in order to proactively manage their well-being by taking actions to allow them to psychologically detach from their work activities. For example, HRM practitioners can encourage and support employees to become involved in leisure activities (e.g., language classes, sport activities, etc.) to minimize any associations to work. HRM practitioners also need to educate their employees on strategies to help them psychologically detach from work. For instance, HRM practitioners can develop intervention techniques to help employees detach themselves from work. Taken together, this research points to the importance of organizations in taking a proactive stance in terms of limiting intense work demands in order to promote positive employee well-being inside and outside of the workplace.

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Figure 1

A Moderated Mediation Model of Work Intensity, Emotional Exhaustion, Psychological Detachment, and Life Satisfaction

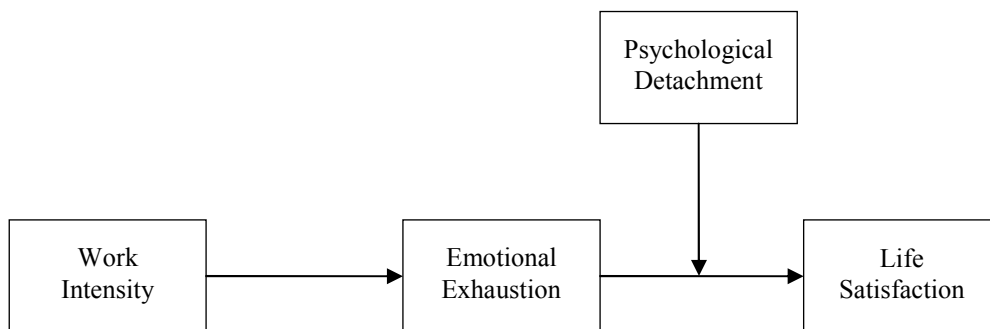
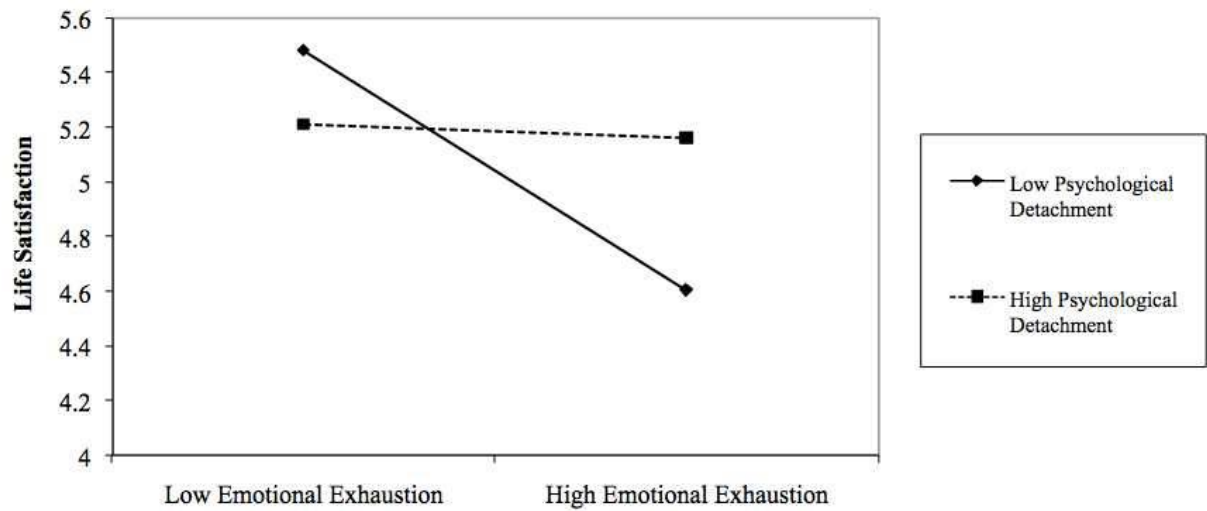


Figure 2

The Plotted Interaction of the Moderating Effect of Psychological Detachment in the Relationship between Emotional Exhaustion and Life Satisfaction



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Table 1
Means, Standard Deviations, Correlations, and Reliabilities

Variable	M	S.D.	1	2	3	4	5	6	7	8
1. Work Intensity	3.58	0.88	(.83)							
2. Emotional Exhaustion	2.97	1.44	.59**	(.94)						
3. Psychological Detachment	2.87	0.95	-.18*	-.18*	(.85)					
4. Life satisfaction	5.06	1.38	-.17*	-.32**	.15	(.93)				
5. Gender	0.04	0.20	.08	.12	-.06	-.02	--			
6. Employment Status	0.77	0.43	.21**	.11	-.16	-.23**	.03	--		
7. Supervisory Duties	0.51	0.50	.12	-.14	-.19*	.07	.06	.22**	--	
8. Organization Tenure (years)	10.40	8.98	.06	-.04	.03	.04	-.07	.08	.19*	--
9. Hours Worked	39.12	8.97	.21**	.12	-.16	-.20*	.03	.68**	.23**	.03

Notes.

Cronbach's alphas are reported on the diagonal in parentheses

N = 149

M = Mean; S.D. = Standard deviation

** $p < .01$ (two-tailed)* $p < .05$ (two-tailed)

Table 2

The Mediating Effect of Emotional Exhaustion in the Work Intensity and Life Satisfaction Relationship

Total, Direct, and Indirect Effects		
	Unstandardized Coeff.	SE
Direct and total effects		
Work intensity on emotional exhaustion (path <i>a</i>)	.99***	.11
Emotional exhaustion on life satisfaction (path <i>b</i>)	-.31**	.10
Total effect of work intensity on life satisfaction (path <i>c</i>)	-.20	.13
Direct effect of work intensity on life satisfaction (path <i>c'</i>)	.10	.16
Bootstrapping results for the indirect effects		
Indirect effect of work intensity on life satisfaction via emotional exhaustion	-.30	.13
CI (95%)	[-.58, -.06]	

Notes:

Values are unstandardized regression coefficients

CI = confidence interval

Bootstrapped samples = 5,000

p* < .05, *p* < .01, ****p* < .001

N = 149

Path *a* denotes the link between the independent variable and the mediating variable. Path *b* denotes the link between the mediating and dependent variables. Path *c* reflects the relationship between the independent and dependent variables when the mediating variable is not included - that is, the total effect model. Path *c'* represents the link between the independent and dependent variables when the mediating variable is entered into the analysis - that is, the direct effect model.

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Table 3
The Moderating Effect of Psychological Detachment in the Emotional Exhaustion and Life Satisfaction Relationship

Variables	Outcomes	
	Unstandardized Coef.	SE
Emotional exhaustion	-.23**	.08
Psychological detachment	.07	.12
Emotional exhaustion x Psychological detachment	.21**	.07
Gender	.07	.54
Employment Status	-.61	.34
Supervisory Duties	.25	.23
Organization Tenure	.01	.01
Hours Worked	-.01	.02
R^2	.20	

Notes.

N = 149

SE = Standard error

The predictor variables were centered prior to the analysis

Values are unstandardized regression coefficients

* $p < .05$, ** $p < .01$, *** $p < .001$

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Table 4

**Simple Slopes Analysis:
Test of the Moderating Role of Psychological Detachment in the Relationship
between Emotional Exhaustion and Life Satisfaction**

Level of Psychological Detachment	Effect	SE	t	LLCI	ULCI
Low (-1 SD)	-.42***	.10	-4.39	-.62	-.24
Moderate (Mean)	-.23**	.08	-3.03	-.38	-.08
High (+1 SD)	-.04	.11	-.34	-.25	.18

Notes.

N = 149

SE = Standard error

LLCI = Lower level confidence interval, and ULCI = Upper level confidence interval

* $p < .05$, ** $p < .01$, *** $p < .001$

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Table 5

**Moderated Mediation Analysis:
Test of the Moderating Role of Psychological Detachment in the Relationship between
Work Intensity on Life Satisfaction via Emotional Exhaustion**

Level of Psychological Detachment	Effect	SE	LLCI	ULCI
Low (-1 SD)	-.45	.16	-.75	-.13
Moderate	-.26	.13	-.52	-.03
High (+1 SD)	-.07	.14	-.34	.22

Notes.

N = 149

Results are based on a bootstrap sample size of 5,000

SE = Standard error

LLCI = Lower level confidence interval, and ULCI = Upper level confidence interval

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Table 6

Post-Hoc Analysis: The Moderating Effect of Psychological Detachment in the Work Intensity and Emotional Exhaustion Relationship

Variables	Outcomes	
	Unstandardized Coef.	SE
Work intensity	.97***	.11
Psychological detachment	-.18	.10
Work intensity x Psychological detachment	-.06	.11
Gender	.55	.48
Employment Status	-.00	.30
Supervisory Duties	-.68***	.20
Organization Tenure	-.00	.01
Hours Worked	.00	.01
<i>R</i> ²	.42	

Notes.

N = 149

SE = Standard error

The predictor variables were centered prior to the analysis

Values are unstandardized regression coefficients

* $p < .05$, ** $p < .01$, *** $p < .001$