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Working conditions, work-life conflict and wellbeing in UK prison officers: the role of affective rumination and detachment

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### **Abstract**

Although prison officers experience the working conditions associated with work-life conflict, little research has explored this issue. This study draws upon the work-home resources model (ten Brummelhuis & Bakker, 2012) to investigate relationships between working conditions (demands and experiences of aggression) and time-based, strain-based and behavior-based work-life conflict in UK prison officers (n = 1,682). Associations between working conditions, work-life conflict, and emotional exhaustion were also examined. Two recovery behaviors (affective rumination and detachment) were considered as potential moderators of associations between working conditions and emotional exhaustion. High levels of all work-life conflict dimensions were found which were related to working conditions and emotional exhaustion. Some evidence was found that higher rumination and lower detachment exacerbated the positive association between both job demands and aggression and emotional exhaustion. The implications of the findings for the wellbeing and professional functioning of prison officers are discussed, together with key areas for future research.

Keywords: work-life conflict; prison officers; correctional staff; working conditions; burnout; recovery

### Introduction

There is evidence that prison officers are more vulnerable to job-related stressors and strains than many other occupational groups (Johnson et al., 2005; Kunst, 2011; Schaufeli & Peeters, 2000). Research conducted in several countries has highlighted the working conditions that are particularly stressful in the prison sector such as high demands; time pressures; low input into decision-making; role difficulties; procedural injustice; lack of resources and rewards; poor quality training; lack of support; and poor relationships with managers and co-workers (Bevan, Houdmont & Menear, 2010; Finney, Stergiopoulos, Hensel, Bonato, & Dewa, 2013; Holmes & MacInnes, 2003; Lambert et al., 2009; Liebling, Price, & Shefer, 2011; Schaufeli & Peeters, 2000).

Other studies indicate that stressors that are intrinsic to the job role, such as overcrowding, understaffing, and aggression from prisoners, are also powerful sources of strain for prison officers (Finney et al., 2013; Hartley, Davila, Marquart, & Mullings, 2013; Humphrey, 2011; Kunst, 2011; Mahfood, Pollock, & Longmire, 2013; Martin, Lichtenstein, Jenkot, & Forde, 2012; Rutter & Fielding, 1988; Senol-Durak, Durak, & Gençöz, 2006). Recently published statistics show that the incidence of serious attacks on prison staff by inmates is rising in the UK (Ministry of Justice, 2015) and the US (Konda, Reichard, & Tiesman, 2012). Work-related violence can be defined as any incident in which a person is abused, threatened or assaulted in circumstances relating to their work (HSE, 1996). As well as the direct impact of any injuries sustained on physical health, exposure to violence at work can have serious negative implications for employees and organizations such as mental health problems, burnout, absenteeism and turnover (Bourbonnais, Jauvin, Dussault, & Vézina, 2007; Schat & Frone, 2011; Schaufeli & Bakker, 2004). Exposure to workplace aggression can also engender work-life conflict and threaten the quality of relationships with friends and

family (Sonnentag & Fritz, 2007). Little is known, however, about the implications of experiences of violence and aggression for the wellbeing and personal life of prison officers.

## Mental health and burnout

There is evidence that prison officers are at greater risk of mental health problems than many other occupational groups. A survey conducted by Johnson and colleagues (2005) that obtained data across 26 different jobs in the UK found considerably poorer psychological health among prison officers than most other professions. Other studies have found rates of psychological distress, depression and post-traumatic stress disorder that far exceed those of the general population (Denhof & Spinaris, 2013; Dollard & Winefield, 1998; Harvey, 2014). Prison officers also appear to be at particularly high risk of burnout (Finney et al., 2013; Lambert et al., 2015; Schaufeli & Peeters, 2000), which is a state of mental and/or physical exhaustion caused by excessive and sustained work stress (Maslach, Jackson, & Leiter, 1996). Burnout encompasses three independent but interlinked elements: emotional exhaustion, depersonalisation/cynicism and diminished feelings of personal accomplishment.

The deleterious consequences of burnout are wide-ranging for both organizations and employees. There is evidence that prison officers who are more 'burned out' report poorer physical and psychological health problems, less job satisfaction and commitment, and more absenteeism and turnover intentions (Garland, Lambert, Hogan, Kim, & Kelley, 2014; Griffin, Hogan, Lambert, Tucker-Gail, & Baker, 2009; Lambert, Barton-Bellessa, & Hogan, 2015; Lambert et al., 2010). Moreover, studies of other safety critical jobs, such as the police and the fire and rescue services, indicate that burnout can impair job performance (both self-rated and supervisor-rated), encourage unsafe working practices, encourage objectification of service users and engender more positive attitudes towards violence as a way of solving problems (Kop, Euwema, & Schaufeli, 1999; Nahrgang, Morgeson, & Hofmann, 2011;

Parker & Kulik, 1995). Although all three components of burnout are commonly reported by prison officers, emotional exhaustion is thought to be particularly damaging to wellbeing and its effects can also extend beyond the working environment to influence functioning in the personal domain (Rupert, Stevanovic, & Hunley, 2009; Shirom, 2003).

# Work-life conflict and recovery

The prevalence of work-life conflict has increased in most sectors of the economy and it is now one of the most pressing occupational health concerns (Grzywacz & Demerouti, 2013). Employees who work long antisocial hours in hazardous and emotionally demanding jobs, such as prison officers, are believed to be at particular risk (Kinman & Jones, 2001). Little is yet known about officers' experiences of the interface between work and personal life; most of the available studies have been conducted in single institutions in the USA. There is some evidence, however, that the demands and tensions of the prison officer's role have strong potential to conflict with non-working life, with negative implications for wellbeing and functioning in both domains (e.g. Armstrong, Atkin-Plunk, & Wells, 2015; Griffin, 2006; Lambert, Hogan, & Barton, 2002; Lambert, Hogan, Camp, & Ventura, 2006).

Work-life conflict occurs when the cumulative demands of roles within work and personal life are incompatible, so that involvement in one role is made more difficult by participation in the other (Higgins & Duxbury, 1992). The work-home resources model (ten Brummelhuis & Bakker, 2012) is derived from resource-drain theory, whereby personal resources (such as time, attention and energy) are limited and fulfilling the demands in one domain (such as work) will deplete those available to meet the demands of others which has the potential to impair wellbeing in another domain (such as personal life). Conflict between work and personal life can be bi-directional (or reciprocal): i.e. the work role can interfere

with personal roles and personal roles can interfere with the work role. A recent study of prison officers found some support for bi-directional conflict (Armstrong et al., 2015). Nonetheless, a body of evidence indicates that the personal domain is more permeable to workplace demands, suggesting that 'work-to-home' conflict is not only more frequent but also potentially more damaging than 'home-to-work' conflict (Amstad, Meier, Fasel, Elfering, & Semmer, 2011; Grzywacz & Demerouti, 2013). This is confirmed by a study conducted by Lambert and Hogan (2010) whereby work was considered a greater threat to the personal life of prison officers than vice versa.

Work-life conflict can manifest itself in several ways (Greenhaus & Beutell, 1985), all of which are relevant to the prison officers' role. Firstly, time-based conflict occurs when the time spent on the job limits that available to engage in other activities (e.g. working long, anti-social and sometimes unpredictable hours will constrain opportunities to spend time with family, or to relax and recover from work). Strain-based conflict arises when negative emotional reactions to work 'spill over' into the personal domain. Working in threatening or emotionally demanding environments can engender emotional exhaustion and anxiety and irritability outside work (Kinman & Jones, 2001). Behavior-based conflict is where conduct that is expected in one role is incompatible or counterproductive in another. How this type of work-life conflict manifests itself will clearly depend on the behaviors required by the type of job; in the context of prison officers, it may manifest itself as an authoritarian interactive style with people in other life domains (Greenhaus, Allen & Spector, 2006).

Compared to time-based and strain-based work-life conflict, little research has been conducted on behavior-based conflict as it is typically considered to be irrelevant to most occupations (Mauno, Kinnunen & Ruokolainen, 2006). Nonetheless, it has been argued that behavior-based conflict is more common in male dominated, inter-dependent jobs where employees are required to manage people who may be uncooperative, hostile or aggressive

(Dierdorff & Ellington, 2008). All of these factors are central to the role of the prison officer. Research with emergency service workers, such as police officers, who have similar job characteristics to prison staff confirms the salience of behavior-based conflict in such work and its negative impact on wellbeing and personal relationships (Authors, 2012; Britt, Adler & Castro, 2006).

Lambert and colleagues (2006) examined the three work-life conflict dimensions as predictors of job stress, satisfaction and organizational commitment in officers working in a high security prison in the US. The pattern of relationships that were observed varied considerably: strain-based conflict was associated with job stress and satisfaction and behavior-based conflict was related to job satisfaction and commitment, whereas time-based conflict was linked with commitment only. More recent research conducted by Armstrong et al. (2015) found evidence for all three types of conflict in a sample of officers from 13 US prisons that were significantly associated with both job stress and satisfaction.

There is evidence that recovery experiences can moderate relationships between work demands and work-life balance (Kinman & Jones, 2001). Recovery is a process by which employees are able to return the functional systems they use during the working day to prestressor levels (Sonnentag & Fritz, 2007). Although individuals vary in the extent to which they prefer their work and personal lives to be integrated or segmented (Kossek & Lautsch, 2008), the ability to disengage from work psychologically may be an important resource for prison officers as it can promote recovery by mitigating the negative impact of job demands and protecting wellbeing and functioning in both domains (Meijman & Mulder, 1998).

Conversely, thinking about work during personal time can be a key determinant of absent or delayed recovery. There is evidence that ruminating about work concerns after the working day and an inability to detach from such worries can impair physical, psychological and emotional recovery processes (Cropley & Zijlstra, 2011).

# The current study

This study draws on the work-home resources model (ten Brummelhuis & Bakker, 2012) to examine the work-life experiences of prison officers. Evidence has been provided that officers experience a high level of demand at work and are at considerable risk of aggression and violence from prisoners. These factors have the potential to impair the quality of personal life. Based on the review of the literature provided above, the present study firstly examines associations between job-related demands and experiences of aggression at work and the three dimensions of work-life conflict: time-based, strain-based and behaviorbased. Secondly, in line with previous research findings suggesting that conflict between work and personal life can increase the potential for burnout, relationships are examined between the three work-life conflict dimensions and emotional exhaustion. Finally, with reference to the effort-recovery model (Meijman & Mulder, 1998) the moderating role of rumination and detachment in the relationship between job demands and emotional exhaustion is examined. It is predicted that ruminating about work concerns will exacerbate the negative impact of job-related demands and experiences of aggression on emotional exhaustion, whereas the ability to detach (i.e. maintain firm boundaries between work and personal life) will attenuate such effects.

The following hypotheses were formulated:

H<sup>1</sup> Job-related demands will be positively related to time-based, strain-based and behaviour-based work-life conflict.

H<sup>2</sup> Experiences of aggression at work will be positively related to time-based, strain-based and behaviour-based work-life conflict.

H<sup>3</sup> Time-based, strain-based and behaviour-based work-life conflict will be positively related to emotional exhaustion.

H<sup>4</sup> Rumination will moderate the associations between both job-related demands and experiences of aggression at work and emotional exhaustion by strengthening this relationship

H<sup>5</sup> Detachment will moderate the associations between both job-related demands and experiences of aggression at work and emotional exhaustion by attenuating this relationship

## Method

# Sample

An online questionnaire was completed by 1,682 prison officers working in UK prisons (85% male) in the autumn of 2014. Officers were invited to participate via a link on the website of the Prison Officer Association, which represents the majority of staff employed in the UK. Respondents identified as predominantly white British (97%) with an

age range from 20 to 67 years and a mean of 47 (SD = 8.25). They worked across England, Wales, Scotland and Northern Ireland in prisons housing adult and young offenders. Length of employment in the prison service ranged from one to 41 years with a mean of 18 years (SD = 7.9). Most (94%) worked on a full-time basis and all but five were employed on a permanent contract. Online surveys are recommended when investigating sensitive issues in groups of workers where assurances of confidentiality are crucial (Baruch & Holtom, 2008), but calculating a response rate using such methodology is not possible as the number of participants exposed to the survey is unknown. Nonetheless, comparisons with the demographic profile of the participants indicated that they were representative of the wider population of prison officers in the UK in terms of age and terms of employment at the time the research was conducted (MoJ, 2014). The proportion of women officers who participated in the present study, however, was lower than the UK statistics provided for prison employees by the Ministry of Justice.

#### Measures

A series of well-validated scales was used to assess the study variables. For all scales, mean scores were taken across variables with higher scores representing higher levels of the construct that was assessed.

Job demands were assessed by an 8-item scale from the UK Health and Safety Executive Indicator Tool (Cousins et al., 2004). Questions examined the extent to which participants experience demands relating to workload, pace of work and working hours on a 5-point scale ranging from 1 = never to 5 = always (Cronbach's alpha = .85)

Experiences of aggression at work were assessed by a scale developed for this study.

This examined the frequency of which respondents experience six types of aggressive behavior from prisoners: verbal threats, verbal abuse, intimidation, physical assault, sexual

harassment and sexual assault. These areas were drawn from previous literature (see Langan-Fox, Cooper and Klimoski, 2007) and guidance on workplace violence published by the UK Health and Safety Executive (HSE, 1996). Responses were requested on a 6-point scale ranging from 1 = never/or almost never to 6 = regularly (once a day or more).

Work-life conflict was measured by Carlson, Kacmar, and Williams' (2000) 9-item scale. This examines time-based, strain-based and behavior-based conflict from work to personal life on a 5-point scale ranging from 1 = *strongly agree* to 5 = *strongly disagree*. There is increasing evidence that the true extent of conflict experienced by employees without caring responsibilities may not be captured by scales that seek to measure conflict between work and family (Fisher, Bulger, & Smith, 2009; Waumsley, Houston, & Marks, 2010). Therefore, where relevant, the items in this scale were re-worded to capture perceived conflict between work and personal life in general, rather than between work and family life. (Cronbach's alpha for time-based conflict = .91, strain-based conflict = .94 and behavior-based conflict = .84)

A measure developed by Querstret and Cropley (2012) was utilized to assess recovery experiences. Two of the three sub-scales were used: a) nine items measure the extent to which respondents ruminate about work during their free time; and b) five items assess their ability to detach themselves from work issues. Items were assessed on a 5-point scale ranging from  $1 = strongly \ disagree$  to  $5 = strongly \ agree$ . (Cronbach's alpha for rumination = .93 and detachment = .86)

Emotional exhaustion was measured using a sub-scale from an abbreviated version of the Maslach Burnout Inventory (Maslach et al., 1996) that has been used in studies examining wellbeing in different occupational groups (McManus et al. 2011; Dewa, 2014). This 3-item measure utilises a 7-point scale to assess how often participants experience a state of being emotionally depleted ranging from 0 = never to 6 = every day. (Cronbach's alpha = .85)

### **Results**

A high level of all three types of work-life conflict was observed: time-based conflict = 3.9 (SD = 0.98); strain-based conflict = 3.6 (SD = 1.07) and behavior-based conflict = 3.5 (SD = 0.88). Analysis of variance indicated that time-based conflict was the most strongly endorsed overall (p < .001), but no significant differences were found between levels of strain-based and behavior-based conflict. Respondents also reported a fairly high level of affective rumination and a low level of detachment: 3.6 (SD = 0.94) and 2.8 (SD = 0.83).

Correlations between the study variables are provided in Table 1. As can be seen, job demands and experiences of aggression were positively associated with all three aspects of work-life conflict: demands and time-based conflict (r = .41, p < .001), strain-based conflict (r = .52, p < .001) and behavior-based conflict (r = .27, p < .001); aggression and time-based conflict (r = .37, p < .001), strain-based conflict (r = .45, p < .001) and behavior-based conflict (r = .29, p < .001). Hypotheses 1 and 2 were therefore supported.

# TABLE 1 ABOUT HERE

Supporting hypothesis 3, the three types of work-life conflict were significantly associated with emotional exhaustion in a positive direction: time-based conflict (r = .45, p < .001), strain-based conflict (r = .67, p < .001) and behavior-based conflict (r = .39, p < .001). Positive associations were found between both job demands and aggression, and emotional exhaustion (r = .58, p < .001 and r = .53, p < .001 respectively). Moreover, emotional exhaustion was positively related to affective rumination (r = .64, p < .001) and negatively associated with detachment (r = -.46, p < .001).

A series of hierarchical regression analyses was conducted to examine the potential moderating roles played by affective rumination and detachment in the relationship between:

a) job demands and b) experiences of aggression and the outcome variable emotional exhaustion. Gender, age and length of service were entered in Step 1 of each equation to control for their potential effects. Following the procedures recommended by Baron and Kenny (1986), the predictor variable and the potential moderator were entered simultaneously in Step 2 and the interaction term (the product of these two variables) entered in Step 3. A moderation effect is observed if the interaction term accounts for a significant proportion of variance in the outcome variable in the final step.

Details of the regressions are shown in Tables 2 and 3. The first two equations (Table 2) examined the potential moderating effects of affective rumination and detachment on the relationship between job demands and emotional exhaustion. Strong main effects were found for age (in a negative direction), job demands and affective rumination and detachment. Supporting hypotheses 4 and 5, evidence was found that both recovery strategies moderated the relationship between job demands and emotional exhaustion. The first equation explained 52% of the total variance, with 2% accounted for by the two-way interaction between job demands and affective rumination (p < .001). The second equation accounted for 44% of the variance, with 5% explained by the two-way interaction between job demands and detachment (p < .001). The interaction effects are illustrated in Figures 1 and 2.

# TABLES 2 AND 3 ABOUT HERE

The second two equations examined the potential moderating effects of affective rumination and detachment on the relationship between experiences of aggression at work and emotional exhaustion. Significant main effects were found for age (in a negative direction), aggression and both affective rumination and detachment. Supporting hypothesis 4 and 5, the first equation accounted for 54% of the variance in emotional exhaustion with the two-way interaction between aggression and affective rumination explaining a small but

nonetheless significant proportion. The second equation explained 42% of the variance, with 1% explained by the two-way interaction between experiences of aggression and detachment.

### FIGURES 1 – 4 ABOUT HERE

### **Discussion**

The findings of this study demonstrate that prison officers have difficulties balancing the demands of their work with their personal life. In accordance with previous research conducted in prisons in the US (e.g. Lambert et al., 2006), evidence was found that officers experience all three types of work-life conflict. Particular problems were highlighted with time-based conflict, where time spent on the job reduces opportunities for officers to relax and engage in family life and leisure activities. Nonetheless, self-reported strain-based conflict, where feelings of anxiety or irritability engendered by the job role have a detrimental impact on personal life, was also commonplace. A high level of behavior-based conflict was also reported suggesting that the behaviors that are expected of prison officers are not necessarily conducive to a satisfying personal life. The salience of behavior-based conflict to the wellbeing of prison officers found in this study, and previously in the work of Lambert and colleagues, indicates that future research should explore the impact of this type of work-life conflict on the personal relationships of prison officers.

Strong positive associations were noted between both types of job-related stressors and the three components of work-life conflict. Evidence was found that time-based and strain-based conflict are common reactions to long working hours, high workload and fast pace of work. Strain-based conflict was also related to personal experiences of aggression from prisoners and had a particularly strong relationship with emotional exhaustion. This

suggests a dynamic process by which prison officers' experiences of demands and aggression at work engender feelings of depression, anxiety and irritability which, in turn, deplete their emotional resources. Emotional exhaustion is also likely to impair job performance, so its implications for functioning in the job role, as well as for psychological health and wellbeing in the personal domain, are also clear (Kop et al., 1999; Lambert et al., 2015).

The importance of being able to 'switch off' from work worries and concerns in order to replenish personal resources has previously been highlighted (Sonnentag & Fritz, 2007). In the current study, prison officers who engaged in affective rumination about their work more frequently tended to report more work-life conflict and were more likely to be emotionally exhausted. Conversely, officers who were better able to detach themselves from work-related difficulties typically enjoyed a better work-life balance and were more psychologically healthy. The importance of 'segmenting' work and personal life for prison staff was further underlined by the evidence emerging for the buffering effects of affective rumination and detachment. These findings suggest that firmer boundaries between work and personal life can protect prison officers from the negative impact of work demands on their wellbeing. It is likely that job demands are increasing in response to staffing reductions recently introduced in the UK prison service. Moreover, the frequency and severity of violent incidents is generally increasing in the UK and the US (Konda et al., 2012; Ministry of Justice, 2015). The ability to switch off psychologically from such experiences is therefore crucial in order to protect work-life balance and wellbeing. It is important to note, however, that ruminating about violent incidents that have occurred to oneself or one's colleagues, or worrying excessively about those that might happen in the future, can be a sign of PTSD. This disorder is particularly common in the prison service and requires professional intervention (Denhof & Spinaris, 2013).

Although the need to replenish physical and psychological resources is important for workers in all sectors of the economy, it is crucial for those who work in safety critical jobs. Prison officers are required to maintain a high degree of vigilance during their working day in order to pre-empt and manage low-level disruption among the prison population in order to avoid them escalating into more serious incidents. It is essential therefore that prison officers are given adequate time and support and, if required, training to help them 'switch off' from work concerns and worries in their personal life. There is a need to develop carefully targeted interventions to help officers create more effective physical and psychological barriers between work and non-working life in order to facilitate the unwinding process. Such interventions should draw on psychological theories in order to encourage and sustain behavior change, and ensure that a supportive and facilitative organizational climate is developed to monitor workload and provide effective support after experiences of aggression.

This study has extended knowledge of prison officers' experiences of the interface between work and personal life, but some limitations are evident. While the sample size was substantial and broadly representative of the wider population of prison officers in the UK, the extent to which the findings captured the experiences of all officers working in different types of correctional institution cannot be established. Future research should utilize stratified sampling to obtain data from a nationally-representative group of officers in terms of demographics and prison type. It should be acknowledged, however, that obtaining reliable statistics at a national level to guide such a sampling strategy would be challenging given the current fragmentation of the UK prison system. It is also possible that the perceptions and experiences of work reported by members of a trade union were not generalizable. While respondents might have been motivated to focus excessively on the negative aspects of their working conditions (and on their personal reactions to them), a study of labour markets conducted by Georgellis and Lange (2009) found that members of trade unions are more

satisfied with their work than those who are not unionized (Georgellis & Lange, 2009).

Moreover, there is evidence that employees who experience greater job satisfaction are more, rather than less, likely to participate in attitude surveys (Fauth et al. 2012). A further limitation of the study is the use of an abbreviated measure of emotional exhaustion.

Although this has been used in studies of other occupational groups, the full sub-scale would have facilitated comparisons with the level of emotional exhaustion found in other studies of prison officers and other occupational groups.

Statistically significant moderation effects were found in study, suggesting that higher affective rumination and lower detachment can exacerbate the negative impact of job demands and experiences of aggression on emotional exhaustion in prison officers. While such effects are plausible and concur with the findings of previous research conducted with different occupational groups, the incremental variance accounted for by the interactions was modest. Nonetheless, it has been argued that multiple regression techniques can underestimate moderator effects (Aguinis & Gottfredson, 2011; Frese, 1985). It is nonetheless acknowledged that the fairly large sample size utilized in the present study reduces the risk of this downward bias, thus demonstrating more reliable, if small to moderate, effects.

The study is also limited by its cross-sectional design. As discussed above, the findings are likely to reflect a dynamic process whereby aspects of the job role will impact on the work-home interface that, in turn, will affect the professional functioning of employees. Future research should utilise daily diaries to explore this unfolding process and identify the range of situations encountered by prison officers that are most likely to impact on their personal life, engender affective rumination and restrict recovery opportunities. How these experiences influence wellbeing and functioning in both the work and personal domains should also be explored. The impact of specific passive and active recovery behaviors, such as alcohol consumption, poor diet and inactivity that have been previously linked to job

demands and experiences of violence at work, could also be examined over time. The findings of such studies have strong potential to inform holistic interventions to help prison officers recover from the demands of their work.

While this study found evidence that prison officers who were better able to detach themselves from work concerns experienced better work-life balance and wellbeing, there is growing evidence that employees can gain skills and a sense of satisfaction from the job that can enrich and facilitate their non-working life (Grzywacz & Demerouti, 2013). Although detachment can protect employees from the negative impact of work on the personal domain, it also has the potential to 'neutralize' any beneficial effects (Sonnentag & Fritz, 2008). Research that has examined the work-life experiences of prison officers has almost exclusively focused on the potential for the job to *threaten* wellbeing and satisfaction with work and life in general. Studies that explore the job-related factors that positively influence the quality of the personal lives of prison officers as well as impair them might therefore yield useful findings. Utilising a challenge/hindrance stressor framework (Lepine, Podsokoff & Lepine, 2005) to examine such effects could be particularly fruitful. Finally, given that correctional work remains a male-dominated profession, the role played by gender in employees' experiences of work-life conflict and enrichment is also worthy of study.

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TABLE 1: Correlations between study variables

	М	SD	1	2	3	4	5	6	7	8
1. Job demands	3.29	.69	1							
2. Aggression	2.46	.70	.48***	1						
3. WLC: time	3.87	.98	.41***	.37***	1					
4. WLC: strain	3.55	1.07	.52***	.45***	.59***	1				
5. WLC: behavior	3.54	.88	.27***	.29***	.42***	.50***	1			
6. Rumination	3.58	.94	.49***	.36***	.43***	.68***	.43***	1		
7. Detachment	2.81	.83	35***	46***	26***	51***	31***	65***	1	
8. Emotional	4.77	1.67	.58***	.53***	.45***	.67***	.39***	.64***	.64***	1
exhaustion										

*Note*. \*\*\*p = < .001

Table 2: Moderating effects of affective rumination and detachment on the demands-emotional exhaustion relationship

1) Affective rumination as mo	oderator between j	ob demands and emo	tional exhaustion	
Predictor	Step 1	Step 2	Step 3	
Gender	04	.00	.00	
Age	20***	10***	10***	
Job experience	.01	.00	.00	
a) Job demands		.28***	.13***	
b) Affective rumination		.52***	.23***	
Interaction (a X b)			40***	
Total R <sup>2</sup>	.04***	.46***	.02***	
2) Detachment as moderator b	etween job demar	nds and emotional ex	haustion	
Predictor	Step 1	Step 2	Step 3	
Gender	04	.00	.01	
Age	20***	14***	12***	
Job experience	.01	.01	.02	
a) Job demands		.40***	.06	
b) Detachment		34***	88***	
Interaction (a X b)			.58***	
Total R <sup>2</sup>	.04***	.35***	.05***	

*Note.* \**p* < .05. \*\**p* < .01. \*\*\**p* < .001

Note: Standardized coefficients are reported

Table 3: Moderating effects of affective rumination and detachment on the aggression-emotional exhaustion relationship

1) Affective rumination as mod	erator between e	experiences of aggres	sion and emotional exhaustion	
Predictor	Step 1	Step 2	Step 3	
Gender	05	02	02	
Age	21***	07**	07**	
Job experience	.01	.01	.01	
a) Experience of aggression		.33***	.46***	
b) Affective rumination		.52***	.64***	
Interaction (a X b)			22**	
Total R <sup>2</sup>	.04***	.49***	.01**	
2) Detachment as moderator be	tween experienc	es of aggression and	emotional exhaustion	
Predictor	Step 1	Step 2	Step 3	
Gender	05	03	03	
Age	21***	10***	09***	
Job experience	.01	.03	.02	
a) Experience of aggression		.43***	.16**	
b) Detachment		35***	63***	
Interaction (a X b)			.34***	
Total R <sup>2</sup>	.04***	.37***	.01***	

*Note.* \*p < .05. \*\*p < .01. \*\*\*p < .001

Note: Standardized coefficients are reported

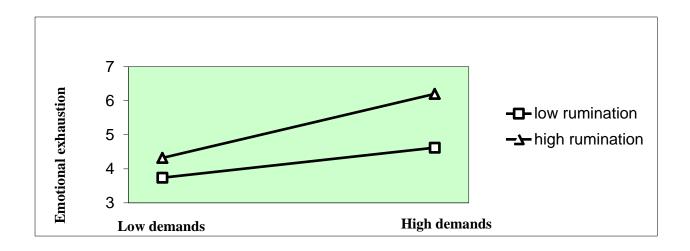


Figure 1: Interaction effect of demands and rumination on emotional exhaustion

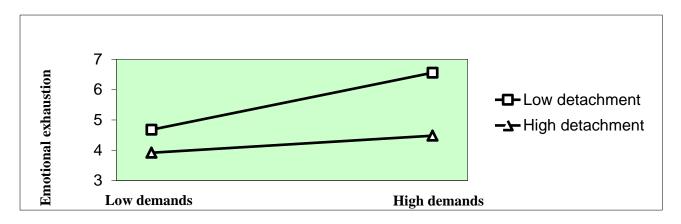


Figure 2: Interaction effect of demands and detachment on emotional exhaustion

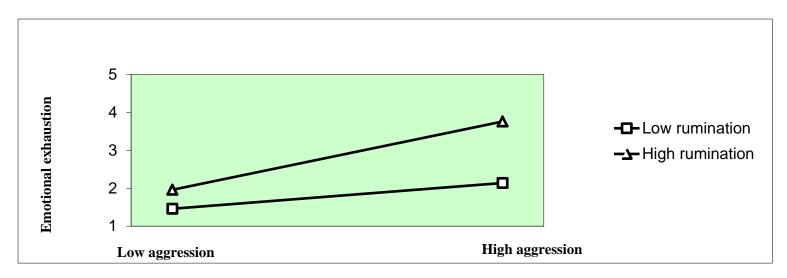


Figure 3: Interaction effect of aggression and rumination on emotional exhaustion

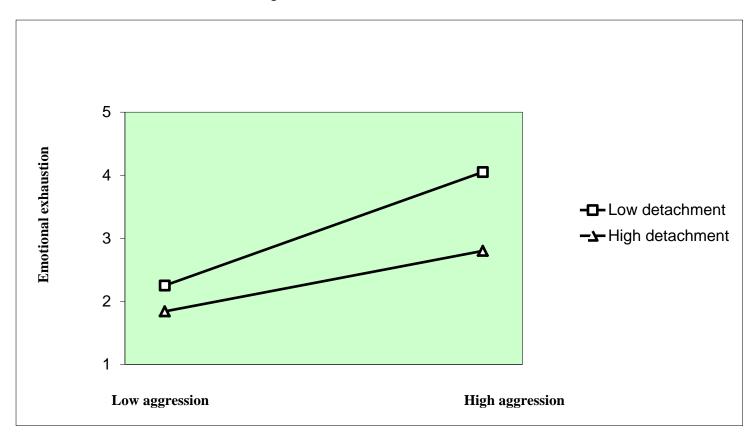


Figure 4: Interaction effect of aggression and detachment on emotional exhaustion