Job demands, organizational justice, and emotional exhaustion in prison officers

Andrew James Clements & Gail Kinman

Submit your article to this journal ⧉

View related articles ⧉

View Crossmark data ⧉

Job demands, organizational justice, and emotional exhaustion in prison officers

Andrew James Clements [a] and Gail Kinman [b]

aWork and Organisation, Aston Business School, Aston University, Birmingham, UK; bDepartment of Organizational Psychology, Birkbeck, University of London, London

ABSTRACT

Prison officers experience a number of occupational and organizational stressors, and are at considerable risk of burnout. There has been limited research examining the processes by which the demands officers experience impact on their burnout risk. Drawing on the job demands-resources model, we tested distributive justice perceptions as a mediator for the relationship between workload and violence with emotional exhaustion. We further tested whether supervisor-focused interactional justice perceptions would be associated with reduced emotional exhaustion via stress culture (i.e. a perceived ability to discuss stress-related problems with managers). UK prison officers (N = 1792) completed an online survey. Findings indicated that, while workload was associated with emotional exhaustion directly and via distributive justice, experiences of violence was only directly linked with emotional exhaustion. Interactional justice was significantly associated with emotional exhaustion via the ability to discuss stress-related problems, but the association was weak. Findings suggest positive manager-subordinate relationships are not sufficient to meaningfully enhance psychological wellbeing. Instead we highlight the need to manage officers' workload.

Introduction

In the UK and globally prisons are under pressure due to increasing prisoner numbers and reduced funding (Clements & Kinman, 2020). While in recent years there has been an improvement in living conditions in UK prisons, there remain concerns about the amount of time prisoners spend locked up (rather than in purposive activity), rising levels of self-harm, and violence both between prisoners and on staff (HM Chief Inspector of Prisons for England and Wales, 2020). The lack of purposeful activity for prisoners has been linked to low staffing levels (Her Majesty's Inspectorate of Prisons, 2019). Overcrowding and low staffing levels are a major source of stress for prison officers (Martin, Lichtenstein, Jenkot, & Forde, 2012). These findings indicate that the wellbeing of prisoners and prison officers is interconnected, so there is a business case as well as a moral case for addressing the working conditions of staff.

Work-related stress has significant costs to individuals, organisations, and societies. Individuals are at risk of poor physical and mental health (Li, Zhang, Loerbroks, Angerer, & Siegrist, 2015; Siegrist & Li, 2016), while organisations may face impaired employee performance (Gilboa, Shirom, Fried, & Cooper, 2008), and increased absenteeism (Darr & Johns, 2008) and turnover (Podsakoff, Lepine, & Lepine, 2007). Prison officers are at particular risk of work-related stress (Johnson et al., 2005; Kunst, 2011) and burnout – a state of exhaustion resulting from long-term exposure to stress (Maslach, Schaufeli, & Leiter, 2001). This is due to the job-related stressors that officers can experience, such as heavy workloads (Finney, Stergiopoulos, Hensel, Bonato, & Dewa, 2013), unsociable working hours, (S. Hu et al., 2015) and pressure to work overtime at short notice (Lee, Henning, & Cherniack, 2019). Officers are also at risk of physical assault (Misis, Kim, Cheeseman, Hogan, & Lambert, 2013) verbal abuse and intimidation (Kinman, Clements, & Hart, 2014), and exposure to prisoner self-harm (Wright, Borrill, Teers, & Cassidy, 2006). The exposure to traumatic experiences poses risks to officers, with evidence that they are at similar risk for post-traumatic stress disorder as war veterans (James & Todak, 2018).

Job demands-resources model

The job demands-resources (JDR) model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) predicts that stress arises from an imbalance between the demands of the job and the resources that employees have available to deal with them. The model categorises job characteristics as demands, requiring a response from individuals, and resources, which individuals may use to cope with demands. The JDR model predicts that demands and resources explain aspects of psychological wellbeing such as burnout, as job demands deplete the personal resources of individuals over time (Nahrgang, Morgeson, & Hofmann, 2011). Recent research suggests that job demands lead to burnout via reduced adaptive coping and increased maladaptive coping (Bakker & de Vries, 2021). This may be partly a consequence of psychological strain impairing decision making, resulting in the selection of poor strategies, e.g. problem avoidance.

Some scholars have proposed that the JDR model be extended by considering the role of appraisals (Crawford, LePine, & Rich, 2010; Q. Hu, Schaufeli, & Taris, 2013). For example, Hu and colleagues (Q. Hu et al., 2013) have suggested that demands and resources influence primary and secondary appraisals: appraisals of a threat and one's ability to cope, respectively (Lazarus & Folkman, 1984). They found partial support for the role of equity perceptions (i.e. perceived balance between efforts and rewards) in mediating the relationship between both demands and resources and burnout (Q. Hu et al., 2013). Two key demands experienced by prison officers are workload (Finney et al., 2013) and aggression from prisoners (Ferdik, 2016). We suggest that it is important to consider how these demands may shape prison officers' appraisals of their work. For example, higher perceived levels of workload and aggression are likely to be important indicators that officers' health and home lives are threatened (Kinman, Clements, & Hart, 2017b).

Heavy and intense workloads are associated with emotional exhaustion (Aronsson et al., 2017; Boekhorst, Singh, & Burke, 2017). As noted above, prison officers experience heavy demands associated with workload (Kinman, Clements, & Hart, 2017a). This is particularly harmful when workload exceeds officers' capacity to complete it and when conflicting expectations are placed upon them (Schiff & Leip, 2019). Meta-analysis has

identified that higher workload is associated with reduced job satisfaction, and poorer physical and psychological health (Bowling, Alarcon, Bragg, & Hartman, 2015). Research conducted with UK prison officers has previously found dissatisfaction with support from managers, both generally and in relation to the stress they experience (Kinman et al., 2014). It is also important to note that managers in prisons are also susceptible to stress (Schiff & Leip, 2019), with meta-analysis suggesting that stress experienced by managers influences their behaviour and relationships with subordinates, thereby influencing subordinate stress (Harms, Credé, Tynan, Leon, & Jeung, 2017). Thus workload pressure may also directly and indirectly influence the quality of relationships between officers and their managers.

In addition to high workloads, prison officers are exposed to various forms of aggression including verbal abuse and physical assault (Kinman et al., 2014). Unsurprisingly, those working with more dangerous prisoners report higher levels of work-related stress (Misis et al., 2013). In a South Korean study, Choi and colleagues found that verbal abuse significantly predicted burnout (Choi, Kruis, & Kim, 2020). This reflects a pattern found in research outside the prison context (Aguglia et al., 2020; Deery, Walsh, & Guest, 2011). There is some evidence to suggest that the relationship between aggression and burnout is mediated by psychological climate, i.e. the way the organisation is experienced and interpreted (Bedi, Courcy, Paquet, & Harvey, 2013).

It is important to also consider the role of resources in the work lives of prison officers, as these may help identify ways to enhance officer wellbeing. For example, one study found the individual level variables hope, optimism, as well as perceptions of social support were associated with reduced burnout in prison officers, mediated by resilience (Klinoff, Van Hasselt, Black, Masias, & Couwels, 2018). Of particular relevance to the present study, justice perceptions have been treated as a job resource in longitudinal research outside the prison context, with both supervisor-related justice perceptions (Kinnunen, Feldt, Siltaloppi, & Sonnentag, 2011) and procedural justice (Boyd et al., 2011) contributing to psychological wellbeing.

Organisational justice

Organisational justice represents a strand of research investigating fairness within organisations. The organisational justice literature primarily draws upon social exchange theory (Colquitt, 2012), which posits that individuals seek to reciprocate for services offered by others (Blau, 1964). In this approach it is assumed that employees are likely to reciprocate when they perceive their organisations and supervisors as fair (Colquitt, 2012; He, Fehr, Yam, Long, & Hao, 2017). Distinction is often made between distributive justice and procedural justice (Colquitt, Conlon, Wesson, Porter, & Ng, 2001; Greenberg, 1990). Distributive justice refers to the fairness of rewards (e.g. is one paid fairly compared to colleagues) while procedural justice considers the fairness of systems (e.g. are promotion processes transparent?). Interactional justice is a third type of organisational justice, emerging from procedural justice (Colquitt, 2012), referring to treatment of employees (e.g. respect) and whether honest explanations are provided to them, e.g. about management decisions (Ambrose & Schminke, 2003; Holtz & Harold, 2009). Interactional justice can be further divided into interpersonal justice, focusing on respect and dignity, and informational justice, e.g. the provision of honest explanations (Colquitt, 2001).

Previous research has identified a relationship between organisational justice perceptions and wellbeing, although evidence regarding the precise nature of this relationship is mixed. For example, studies have variously found that procedural and interpersonal justice perceptions were associated with stress via work-family conflict (Judge & Colquitt, 2004), that only distributive and interpersonal justice were negatively associated with emotional exhaustion (Cole, Bernerth, Walter, & Holt, 2010), and that distributive, procedural, and interactional justice were all associated with job stress (Pérez-Rodríguez, Topa, & Beléndez, 2019). Therefore it is important to build the evidence base to help determine the mechanisms that account for these mixed findings.

A small number of studies have explored the role of justice perceptions in prison officer wellbeing, but these are also produced mixed findings. In a study conducted with 322 corrections staff, Lambert and colleagues reported that interpersonal, procedural, and distributive justice were negatively associated with reported job stress (Lambert et al., 2019). By contrast, Boateng and Hsieh (2019) reported that interactional justice was negatively related to stress, whilst procedural and distributive justice were not. One possible explanation is that in Boateng and Hsieh's study a small majority of items for the procedural and distributive justice measures focused on perceptions of performance appraisal systems and procedures relating to misconduct investigations. By contrast, Lambert et al. (2019) measured justice perceptions more broadly. The variables in these two studies therefore may not have been equivalent. Taxman and Gordon (2009) found that procedural justice, but not distributive justice, was associated with reduced fear and perceived risk of attack by prison inmates or retaliation by officers for disclosing misconduct. They suggested that this was linked to perceptions of equity in the organisation and trust in supervisors, although their measure of perceived justice only included one item that explicitly referred to supervisors. Therefore it seems possible that the findings may reflect broader conditions in the environment. Reflecting the importance of context, Lambert and colleagues used a prison (i.e. organisation)-oriented measure of interpersonal justice. By contrast we argue it is important to consider perceptions of interactional justice in terms of line manager-subordinate relationships rather than organisation-employee relationships. Leader behaviours are considered to be an important theoretical antecedent of justice perceptions, because leaders are important connections within organisations, and because they may be the source of injustice experienced (Karam et al., 2019). Perceived transformational leadership style has been found to correlate with interactional and procedural justice perceptions (Alamir, Ayoubi, Massoud, & Hallak, 2019). Our paper builds upon this existing research by using a supervisor-focused measure of interactional justice perceptions and by using a measure of distributive justice that is more broadly focused on fairness in the allocation of workload, responsibilities, and rewards.

Support from colleagues, and particularly manager support, has been associated with reduced experience of emotional exhaustion in prison officers (Lambert, Altheimer, & Hogan, 2010). However, individuals do not always seek support when they need it. The reporting of mental health challenges is stigmatised in 'macho' types of work, where strength, resilience, and self-sufficiency are prioritised (Iversen et al., 2011), such as uniformed services (White, Aalsma, Holloway, Adams, & Salyers, 2015). There is evidence that officers may be reluctant to discuss stress-related challenges with managers (Kinman et al., 2014). We suggest that when managers are seen as showing consideration for subordinates,

reflected in interactional justice perceptions, officers may be more willing to discuss any problems they may be experiencing. In turn, we expect that the ability to discuss stress with managers should be associated with reduced experience of emotional exhaustion.

Project aims and hypotheses

This study aimed to contribute to the literature on job demands and burnout in prison officers by considering the role of appraisals, reflected in distributive and interactional justice perceptions. We see distributive justice as reflecting an appraisal of the work environment, influenced by the experience of workload and experiences of violence from prisoners. By contrast, we see interactional justice as reflecting a job resource in the form of management support, but the availability of which may be affected by the demands present in the work environment. The appraisal of fairness in the organisation, and in relation to one's line manager, may in turn influence a subordinate's willingness to discuss stress-related problems and thereby seek support.

Hypotheses:

- 1a. Perceived workload and experience of violence shall predict distributive justice
- 1b. Perceived workload shall predict interactional justice
- 2. Distributive justice and interactional justice shall predict ability to discuss stress-related problems
- 3. Ability to discuss stress-related problems shall predict emotional exhaustion

Method

Design
We adopted a cross-sectional correlational design in an online survey of prison officers. The variables measured were job demands, experiences of violence and intimidation, justice perceptions (distributive and interactional), the ability to discuss stress-related problems with managers, and burnout.

Participants

Prison officers (N = 1792) were recruited via the POA (formerly the Prison Officer's Association), the trade union for prison, correctional, and secure psychiatric workers. The POA provided a link to the online survey on the website for members. While the POA has over 30,000 members (POA, 2021), it is not possible to know how many saw the link. Therefore, as with much online research, it is not possible to calculate a response rate (Van Selm & Jankowski, 2006). The sample was predominantly male (87.3%), white (97.4%), not disabled (84.3%), heterosexual (90.1%), and married, in a civil partnership, or living with a partner (83.3%). The majority worked in the public sector (99.7%). The age of the sample ranged from 19 to 66 years, with a mean age of 48.18 years (SD = 9.48).

Materials

Subjective workload was measured using the demands subscale of the Health and Safety Executive Management Standards Indicator Tool (Cousins et al., 2004). The subscale consists of eight items on a five-point Likert scale measuring aspects of workload such as working hours, time pressure, and incompatible demands from competing stakeholders. An example item is 'I have unachievable deadlines' (1 = Always to 5 = Never). The scoring was reversed for the purpose of data analysis, such that a higher score represents greater dissatisfaction with workload.

Experiences of aggression were measured using a scale developed by Kinman et al. (2017b). The measure consisted of six items, measuring experiences of verbal abuse and threats, physical assault, and sexual harassment and assault. Items used a five-point Likert scale (1 = Never to 5 = Regularly (e.g. once a day or more)). Higher scores represented more frequent experiences of these events.

Justice perceptions were measured using the distributive justice and interactional justice subscales of Niehoff and Moorman (1993) Organizational Justice measure. Distributive justice consisted of five items measuring perceptions of workload, responsibilities, and rewards as fair. Interactional justice consisted of nine items measuring perceptions of supervisor's behaviour as considerate and perceptions that management decisions were appropriately explained. Both scales were measured using a five-point Likert scale (1 = Strongly disagree to 5 = Strongly agree), with higher scores representing greater levels of perceived justice.

Stress disclosure was measured using a single item. Participants were asked 'to what extent can you discuss stress-related problems with your line manager?' This item was measured on a four-point Likert scale (1 = Never to 4 = Always), with higher scores representing a greater perceived ability to discuss stress-related problems.

Emotional exhaustion was measured using a subscale from the abbreviated version of the Maslach Burnout Inventory (Maslach, Jackson, & Leiter, 1996) which has been used to study wellbeing across a range of occupational groups (Dewa, Jacobs, Thanh, & Loong, 2014). The subscale consists of three items using a seven-point Likert scale (0 = Never to 6 = Every day) measuring frequency of experiences of emotional exhaustion. Higher scores represent higher levels of emotional exhaustion.

Cronbach alpha for scales are reported in Table 1.

Procedure

Ethical approval was granted by the second author's university ethics committee. A link to the online survey was then advertised to POA members by the trade union. Individuals were advised prior to participation that they were invited to complete a survey about their experiences of work with a focus on their wellbeing. They were reassured that participation was voluntary, and that there would be no consequences for them as a result of their decision to participate (or not). They were advised that all data were anonymous, and that their data would be stored on a password-protected computer, with access only available to the research team. We analysed the data using Structural Equation Modeling (SEM) via

Smart PLS to test our hypotheses through the use of competing models. Following guidance (L. Hu & Bentler, 1998) we adopted SRMR as our primary fit index, and supplemented with use of NFI. Table 2 shows the performance of our models with the fit indices.

Results

We began by inspecting the data for multicollinearity using SPSS. Correlation analysis showed a strong relationship between job demands and distributive justice, but not enough to suggest a multicollinearity problem. Table 1 shows the descriptive data for each scale used and the relationships between variables. Workload and aggression both had negative correlations with distributive justice, and to a lesser extent interactional justice. Stress disclosure was positively correlated with both distributive justice and interactional justice, although the latter relationship was stronger. Emotional exhaustion was negatively correlated with distributive justice, interactional justice, and stress disclosure. Having inspected the data, we next conducted hypothesis testing using SEM.

Table 1.

	M	SD	1	2	3	4	5	6	7
(1) Age	48.18	9.48	-						
(1) Workload	3.19	.69	−.12*	(.86)					
(1) Aggression	2.53	.70	−.22*	.52*	(.83)				
(1) Distributive justice	2.30	.75	−.01	−.66*	−.42*	(.84)			
(1) Interactional justice	2.70	.98	−.10*	−.36*	−.27*	.46*	(.97)		
(1) Stress disclosure	1.79	.91	−.01	−.22*	−.22*	.27*	.53*	-	
(1) Emotional exhaustion	3.98	1.69	.01	.58*	.52*	−.55*	−.31*	−.20*	(.86)

Notes: N = 1644–1786
* = p < .001, alpha coefficients are reported along the diagonal

We first tested a model (Figure 1) in which job demands and violence predicted perceptions of distributive justice, distributive justice and interactional justice both predicted ability to discuss stress with line managers, which in turn predicted emotional exhaustion. All pathways were significant, except that between violence and distributive justice (p = .35) and between distributive justice and discussion (p = .40). This model showed a poor fit to the data. We next tested a modification of the model in which violence and interactional justice were predicted by job demands, and violence in turn predicted distributive justice. As with model 1, all pathways were significant, except that between violence and distributive justice (p = .36) and between distributive justice and stress discussion (p = .36). Similarly, this model showed a poor fit to the data.

We next tested a variant of model 1 in which violence directly predicted burnout, rather than being mediated by distributive justice, and the link between job demands and interactional justice was retained (model 3). In this model all pathways were significant, with the exception of that between distributive justice and stress discussion (p = .39). This model showed an improvement in fit.
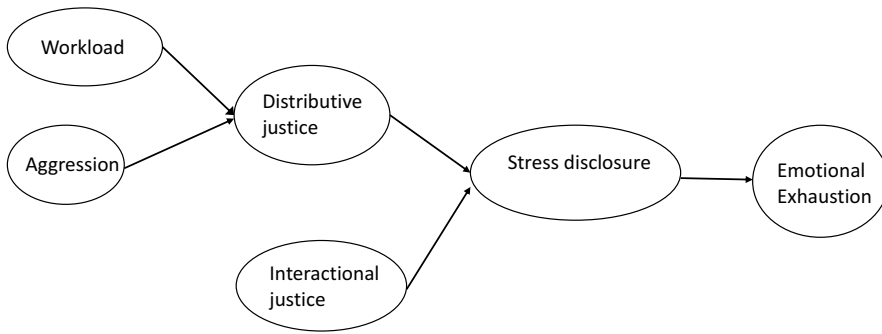
Figure 1. Model 1.

We next tested a version of model 3 in which distributive justice (model 3) and interactional justice had a direct path to emotional exhaustion in addition to the pathway via stress discussions (model 4). This model showed an improved fit, with SRMR falling within the recommended cut-off of .08 (L. Hu & Bentler, 1999). All pathways were significant, save for that between distributive justice and stress discussion (p = .39) and between interactional justice and stress discussion (p = .59).

In model 5 we tested a more parsimonious model in which stress discussion was removed, and both distributive and interactional justice had direct pathways to emotional exhaustion. In this model all pathways were significant, save that between interactional justice and emotional exhaustion (p = .07). However, while there was little change to the SRMR, there was a decrement to the NFI, and therefore we retained model 4.

In model 6 we tested a variant of model 4 in which job demands was permitted a direct pathway to emotional exhaustion, to examine the effects that this had on the pathways via distributive and interactional justice perceptions. The weak positive pathway between job demands and emotional exhaustion was significant (β = .25, p < .001), and the strength of the pathway between distributive justice and emotional exhaustion was reduced from moderate to weak compared to model 4 (β = −.38, p < .001; β = −.21, p < .001, model 4 and 6 respectively). We retained model 6 given that a direct effect was identified, and without detriment to the NFI and SRMR scores. Model 6 is depicted in Figure 2. Model 6 predicted 54.5% of the variance in emotional exhaustion.

Table 2.

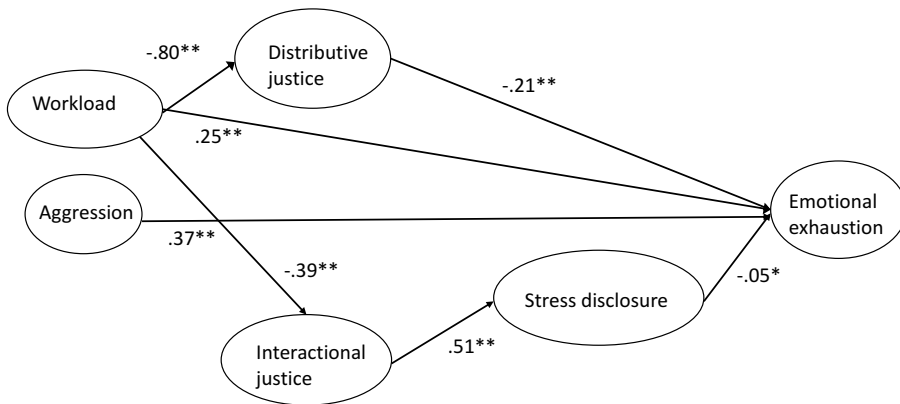| Model	X^2	NFI	SRMR
1	10,763.96	.78	.13
2	10,766.85	.78	.13
3	10,114.85	.79	.09
4	9809.11	.80	.07
5	11,785.29	.76	.07
6	9772.93	.80	.07

Figure 2. Model 6. Note: * = p < .05, ** = p < .001

Discussion

This study aimed to examine the role of organisational justice perceptions, namely distributive and interactional justice, in prison officer wellbeing. We examined distributive justice as a mediator for the relationship between job demands and emotional exhaustion, and stress disclosure as a mediator between justice perceptions and emotional exhaustion. Our findings suggest that distributive and interactional justice play different roles in the wellbeing process. We found that workload was associated with emotional exhaustion both directly and indirectly via distributive justice. However, hypothesis 1a was only partially supported; while workload negatively predicted distributive justice, personal experiences of aggression and violence did not. While previous research has shown aggression can influence burnout through psychological climate, i.e. interpretations of the work environment (Bedi et al., 2013), it may be important to consider the source of aggression. It is possible prison officers accept aggression as part of the job, and therefore do not perceive it as representing organisational unfairness. However, violence did directly predict emotional exhaustion, and so it remains an important job demand in the prison context. Workload was also found to negatively predict perceptions of interactional justice, supporting hypothesis 1b. As noted previously, the stress experienced by leaders may impact their subordinates as a result of leader behaviours and the quality of leader-subordinate relationships (Harms et al., 2017). This may explain why higher perceived workload was associated with lower perceived interactional justice, but there are other possibilities. For example, subordinates may be concerned that they are adding to the burden of their line managers' existing heavy workload. However, we did not directly measure line manager stress. Future research could fruitfully explore the inter-relationship between manager and officer stress.

Hypothesis 2 was only partially supported; while interactional justice had a strong positive association with the ability to discuss stress-related problems with one's line manager, distributive justice did not. This may be because, unlike the measure of interactional justice, distributive justice was not supervisor-focused. We may expect distributive justice to have a stronger association with behaviours directed at the organisation as a whole rather than relationships between individuals, e.g.

counterproductive work behaviours (Liu, Luksyte, Zhou, Shi, & Wang, 2015) or withdrawal behaviours such as turnover (Poon, 2012; Soltis, Agneessens, Sasovova, & Labianca, 2013).

While interactional justice was associated with the perceived ability to discuss stress-related problems with line managers, it should be noted that the relationship between perceived ability to discuss stress and emotional exhaustion was weak. The use of null hypothesis significance testing has been debated at length in the social sciences (Szucs & Ioannidis, 2017). Some scholars recommend using the more stringent $p < .005$ as the threshold for accepting significant findings (Benjamin et al., 2018), where the pathway between stress disclosure and emotional exhaustion found in the current study would have been considered nonsignificant. Consequently, we consider the results to provide poor support for hypothesis 3.

While we may expect the ability to discuss stress-related problems would help protect officers against emotional exhaustion, the relationship may be more complicated. Firstly, line managers do not necessarily possess the competencies required to deal with stress experienced by their employees. Responsibility for employee wellbeing is typically devolved to line managers, but they are often not supported for this (Renwick, 2003). They also may be unable or reluctant to manage employee wellbeing due to insufficient time amidst competing demands (Guest & Woodrow, 2012). While line managers may be approachable and offer support, accessibility is only one of the stress management competencies needed by managers (Lewis, Yarker, Donaldson-Feilder, Flaxman, & Munir, 2010; Toderi, Gaggia, Balducci, & Sarchielli, 2015), and some managers may lack other competencies needed to help subordinates. There is evidence, however, that these competencies can be trained (Adachi, Sekiya, Imamura, Watanabe, & Kawakami, 2020). It would be useful to test the impact of such training in prison officers' managers.

Secondly, feeling able to discuss stress-related problems with line managers does not necessarily lead to actually doing so. For example, workers may in principle believe it is useful to disclose depression to line managers, they may wish to do so in practice only when 'necessary' (Sallis & Birkin, 2014). There is evidence of mental health stigma in a number of 'masculine' work environment (Iversen et al., 2011; White et al., 2015), which may contribute to this challenge. We suggest that future research could examine help-seeking behaviour in prison officers, in order to determine when officers seek help, and what manager behaviours contribute to positive outcomes. This could, for example, examine the role of subordinates' agentic behaviour. A recent study found that employees' ingratiating behaviour with leaders could produce higher quality relationships, and thereby enhance justice perceptions (Koopman, Matta, Scott, & Conlon, 2015).

As well as considering leader and subordinate agency, it is important to also consider the restrictions upon agency. While leaders may have more power than subordinates, we should consider the potential impacts on prison managers, who may lack the ability to address resource-related challenges, e.g. understaffing and a heavy workload, or to reduce the incidence of aggressive and violent behaviours. There are different forms of support, such as instrumental – i.e. the provision of resources, emotional, and informational support (Jolly, Kong, & Kim, 2021), so it would be useful to identify what officers' managers provide.

Our findings suggest that to address psychological wellbeing in the prison sector, the focus should be on reducing job demands. Both workload and experienced aggression contributed to the variance in emotional exhaustion. One factor driving unsafe conditions is understaffing (Penal Reform International, 2019), and therefore there is a need to increase the workforce through recruitment and retention efforts. This is likely to require significant investment by governments. At the organisational level, attention could turn to interventions that might reduce workload demands. One approach could involve prioritising the allocation of existing staff to tasks that are more labour intensive (Steiner & Wooldredge, 2015). We would also recommend reviewing how tasks are performed to identify ways to reduce demands. We recommend a participatory approach, involving officers in the identification of solutions to workload concerns and how any interventions are evaluated. The importance of employee 'voice' in shaping effective stress-reduction interventions has been highlighted and a report of two such participatory approaches suggest that prison manager support is crucial for the success of such methods (Dugan et al., 2016). Interventions targeting causes of stress, such as workload, can be combined with initiatives that enhance individuals' ability to cope. Research suggests that such multi-level approaches are more effective than targeting organisational factors (e.g. workload) or individuals in isolation (LaMontagne, Keegel, Louie, Ostry, & Landsbergis, 2007). Individual-level interventions could include resilience training (Robertson, Cooper, Sarkar, & Curran, 2015), particularly if aimed at those at greater risk of stress (Vanhove, Herian, Perez, Harms, & Lester, 2016). However, such individualistic approaches should not be used in place of action addressing the causes of stress.

Our paper also contributes to the wider literature of the JDR model. The JDR model predicts that resources moderate the relationship between demands and psychological strain, in this case emotional exhaustion, such that resources buffer the impact of demands (Bakker & Demerouti, 2017). However, this prediction has not been consistently supported, with some studies finding a moderation effect (Bakker, Demerouti, & Euwema, 2005) and others not (Q. Hu, Schaufeli, & Taris, 2011). Further, some studies have reported that demands and resources may both be directly associated with burnout (Q. Hu et al., 2013; Huang, Wang, & You, 2016). This finding has further been supported by a meta-analysis of longitudinal studies (Lesener, Gusy, & Wolter, 2019). However, while we found a direct association between job demands, related to both workload and experiences of violence and intimidation, and emotional exhaustion, there was no direct link between interactional justice and emotional exhaustion. Our findings are more consistent with studies finding separate paths from job demands to strain and from job resources to work engagement (Schaufeli, 2015). In this light, it may be more appropriate to consider interactional justice as a theoretical antecedent to work engagement. Exploration of this process may inform opportunities to enhance positive outcomes within prison workforces.

Limitations and future directions

Although our study contributes to the literature on prison officer wellbeing, there are a number of limitations. Firstly, like much of the literature on prison officers, our data were correlational in nature, and therefore cannot establish causal relationships. Longitudinal designs can provide tests of causality (de Lange, Taris, Kompier, Houtman, & Bongers,

2003). Longitudinal research could test the influence of workload, experienced aggression, and other demands on justice perceptions over time, along with the resources that may buffer against strain. Diary studies can be a useful method for examining the dynamics of change over time (Eatough et al., 2016). Such approaches could also identify specific experiences of injustice at work. However, officers may be concerned about the possibility of being identified through their data (Dollard & Winefield, 1998), which can present a barrier to collecting longitudinal data.

Secondly, our research is based upon self-report data. It has been argued that occupational-specific surveys may encourage over-reporting of problems in an effort to improve working conditions (Goodwin et al., 2013). However, given the stigma related to disclosing stress in work environments such as prisons, there may also be a competing tendency to under-report one's own mental health challenges. However, it would be beneficial to consider additional research designs to broaden our understanding of the field. Intervention studies would help advance the literature. At present there are few studies reporting interventions in the prison sector, and these generally focus on individual-level interventions (Evers, Ogloff, Trounson, & Pfeifer, 2019), i.e. secondary interventions. In other words, there is a need for more research on interventions that directly target the source of stress in prison work, i.e. primary interventions. Research suggests that the combination of both primary and secondary interventions is more effective than either alone (LaMontagne et al., 2007), so there is a need to identify primary interventions that are appropriate for the sector. Following Nielsen and colleagues (Nielsen & Miraglia, 2017) we suggest the use of critical realist research, which would offer the opportunity to investigate not only what interventions may enhance wellbeing, but under what circumstances they are likely to work.

Thirdly, our sample was predominantly white and male and worked for the public sector. While this reflects the current reality of the UK prison service (Ministry of Justice, 2021), it limits our ability to examine psychological wellbeing for groups that are less represented. Qualitative methods, with less emphasis on participant numbers and generalisability, could offer the means to examine the challenges faced by women, people of colour, and lesbian, gay, bisexual and transgender (LGBT) officers. Officers in such under-represented groups may have unique predictors of perceived organisational justice, such as experiences of discrimination (Buttner, Lowe, & Billings-Harris, 2010; Le, Palmer Johnson, & Fujimoto, 2021).

Conclusions

Our study contributes to the literature by examining the role job demands and organisational justice perceptions might together play in shaping prison officer experiences of emotional exhaustion. Our findings suggest that job demands, in the form of workload and experienced violence, contribute significantly to emotional exhaustion, with workload having some of its effects via officer evaluations of the fairness of work. By contrast, the relations officers have with their line managers, reflected in interactional justice perceptions, seems to have a negligible relationship with emotional exhaustion. This suggests that working conditions should be prioritised to enhance prison officer wellbeing. Our findings also raise new questions in relation to the role played by manager support in officer wellbeing. In particular, we suggest that a closer examination of the relationship dynamics

between officers and line managers would be beneficial, with a particular focus on help-seeking behaviours and the content and outcomes of discussion of stress-related problems.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Notes on contributors

Dr Andrew Clements is an Occupational Psychologist registered with the Health and Care Professions Council, and an Associate Fellow of the British Psychological Society. Andrew's research interests include wellbeing at work, and participatory approaches to organisational development.

Professor Gail Kinman is a Chartered Psychologist and a Fellow of the British Psychological Society and the Academy of Social Sciences. Gail has published widely in the field of occupational health psychology, with a particular interest in the wellbeing of people working in emotionally demanding jobs such as health and social care and the emergency and security services.

ORCID

Andrew James Clements 🔾 http://orcid.org/0000-0003-0265-0376
Gail Kinman 🔾 http://orcid.org/0000-0002-0130-1708

References

Adachi, H., Sekiya, Y., Imamura, K., Watanabe, K., & Kawakami, N. (2020). The effects of training managers on management competencies to improve their management practices and work engagement of their subordinates: A single group pre- and post-test study. *Journal of Occupational Health*, *62*(1), 1–10.

Aguglia, A., Murri, M.B., Conigliaro, C., Cipriani, N., Vaggi, M., Di Salvo, G., . . . Amore, M. (2020). Workplace violence and burnout among mental health workers. *Psychiatric Services*, *71*(3), 284–288.

Alamir, I., Ayoubi, R.M., Massoud, H., & Hallak, L.A. (2019). Transformational leadership, organizational justice and organizational outcomes: A study from the higher education sector in Syria. *Leadership and Organization Development Journal*, *40*(7), 749–763.

Ambrose, M.L., & Schminke, M. (2003). Organization structure as a moderator of the relationship between procedural justice, interactional justice, perceived organizational support, and supervisory trust. *Journal of Applied Psychology*, *88*(2), 295–305.

Aronsson, G., Theorell, T., Grape, T., Hammarström, A., Hogstedt, C., Marteinsdottir, I., . . . Hall, C. (2017). A systematic review including meta-analysis of work environment and burnout symptoms. *BMC Public Health*, *17*(1), 1–14.

Bakker, A.B., & de Vries, J.D. (2021). Job Demands–Resources theory and self-regulation: New explanations and remedies for job burnout. *Anxiety, Stress and Coping*, *34*(1), 1–21.

Bakker, A.B., Demerouti, E., & Euwema, M.C. (2005). Job resources buffer the impact of job demands on burnout. *Journal of Occupational Health Psychology*, *10*(2), 170–180.

Bakker, A.B., & Demerouti, E. (2017). Job demands–resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, *22*(3), 273–285.

Bedi, A., Courcy, F., Paquet, M., & Harvey, S. (2013). Interpersonal aggression and burnout: The mediating role of psychological climate. *Stress and Health*, *29*(5), 350–359.

Benjamin, D.J., Berger, J.O., Johannesson, M., Nosek, B.A., Wagenmakers, E.-J., Berk, R., . . . Johnson, V. E. (2018). Redefine statistical significance. *Nature Human Behaviour*, *2*(1), 6–10.

Blau, P.M. (1964). *Exchange and power in social life*. New York: Wiley.

Boateng, F.D., & Hsieh, M.L. (2019). Misconduct within the "four walls": Does organizational justice matter in explaining prison officers' misconduct and job stress? *International Journal of Offender Therapy and Comparative Criminology*, *63*(2), 289–308.

Boekhorst, J.A., Singh, P., & Burke, R. (2017). Work intensity, emotional exhaustion and life satisfaction: The moderating role of psychological detachment. *Personnel Review*, *46*(5), 891–907.

Bowling, N.A., Alarcon, G.M., Bragg, C.B., & Hartman, M.J. (2015). A meta-analytic examination of the potential correlates and consequences of workload. *Work and Stress*, *29*(2), 95–113.

Boyd, C.M., Bakker, A.B., Pignata, S., Winefield, A.H., Gillespie, N., & Stough, C. (2011). A longitudinal test of the job demands-resources model among Australian university academics. *Applied Psychology*, *60*(1), 112–140.

Buttner, E.H., Lowe, K.B., & Billings-Harris, L. (2010). Diversity climate impact on employee of color outcomes: Does justice matter? *Career Development International*, *15*(3), 239–258.

Choi, J., Kruis, N.E., & Kim, Y. (2020). The impact of occupational characteristics and victimization on job burnout among South Korean correctional officers. *Criminal Justice and Behavior*, *47*(7), 905–923.

Clements, A.J., & Kinman, G. (2020). A forgotten profession: The need to invest in the wellbeing of prison officers. In P. Birch, and L.A. Sicard (Eds.), *Prisons and community corrections: Critical issues and emerging controversies* (pp. 86–99). Oxon: Routledge.

Cole, M.S., Bernerth, J.B., Walter, F., & Holt, D.T. (2010). Organizational justice and individuals' withdrawal: Unlocking the influence of emotional exhaustion. *Journal of Management Studies*, *47*(3), 367–390.

Colquitt, J.A., Conlon, D.E., Wesson, M.J., Porter, C.O.L.H., & Ng, K.Y. (2001). Justice at the millennium: A meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology*, *86*(3), 425–445. 10.1037//0021-9010.86.3.425.

Colquitt, J.A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology*, *86*(3), 386–400.

Colquitt, J.A. (2012). Organizational justice. In S.W.J. Kozlowski (Ed.), *The Oxford Handbook of Organizational Psychology* (pp. 526–547). New York: Oxford University Press.

Cousins, R., Mackay, C.J., Clarke, S.D., Kelly, C., Kelly, P.J., & Mccaig, R.H. (2004). 'Management Standards' and work-related stress in the UK: Practical development. *Work & Stress*, *18*(2), 113–136.

Crawford, E.R., LePine, J.A., & Rich, B.L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology*, *95*(5), 834–848.

Darr, W., & Johns, G. (2008). Work strain, health, and absenteeism: A meta-analysis. *Journal of Occupational Health Psychology*, *13*(4), 293–318.

de Lange, A.H., Taris, T.W., Kompier, M.A.J., Houtman, I.L.D., & Bongers, P.M. (2003). "The very best of the millennium": Longitudinal research and the demand-control-(support) model. *Journal of Occupational Health Psychology*, *8*(4), 282–305.

Deery, S., Walsh, J., & Guest, D. (2011). Workplace aggression: The effects of harassment on job burnout and turnover intentions. *Work, Employment and Society*, *25*(4), 742–759.

Demerouti, E., Bakker, A.B., Nachreiner, F., & Schaufeli, W.B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, *86*(3), 499–512.

Dewa, C.S., Jacobs, P., Thanh, N.X., & Loong, D. (2014). An estimate of the cost of burnout on early retirement and reduction in clinical hours of practicing physicians in Canada. *BMC Health Services Research*, *14*(1), 1–9.

Dollard, M.F., & Winefield, A.H. (1998). A test of the demand–control/support model of work stress in correctional officers. *Journal of Occupational Health Psychology*, *3*(3), 243–264.

Dugan, A.G., Farr, D.A., Namazi, S., Henning, R.A., Wallace, K.N., El Ghaziri, M., . . . Cherniack, M.G. (2016). Process evaluation of two participatory approaches: Implementing total worker health® interventions in a correctional workforce. *American Journal of Industrial Medicine*, *59*(10), 897–918.

Eatough, E.M., Meier, L.L., Igic, I., Elfering, A., Spector, P.E., & Semmer, N.K. (2016). You want me to do what? Two daily diary studies of illegitimate tasks and employee well-being. *Journal of Organizational Behavior*, *37*(1), 108–127.

Evers, T.J., Ogloff, J.R.P., Trounson, J.S., & Pfeifer, J.E. (2019). Well-being interventions for correctional officers in a prison setting: A review and meta-analysis. *Criminal Justice and Behavior*, 1–19. doi:10.1177/0093854819869975

Ferdik, F.V. (2016). An investigation into the risk perceptions held by maximum security correctional officers. *Psychology, Crime and Law*, *22*(9), 832–857.

Finney, C., Stergiopoulos, E., Hensel, J., Bonato, S., & Dewa, C.S. (2013). Organizational stressors associated with job stress and burnout in correctional officers: A systematic review. *BMC Public Health*, *13*(1), 82.

Gilboa, S., Shirom, A., Fried, Y., & Cooper, C.L. (2008). A meta-analysis of work demand stressors and job performance: Examining main and moderating effects. *Personnel Psychology*, *61*(2), 227–271.

Goodwin, L., Ben-Zion, I., Fear, N.T., Hotopf, M., Stansfeld, S.A., Wessely, S., & de Boer, A. (2013). Are reports of psychological stress higher in occupational studies? A systematic review across occupational and population based studies. *PLoS ONE*, *8*(11), 1–22.

Greenberg, J. (1990). Organizational justice: Yesterday, today, and tomorrow. *Journal of Management*, *16*(2), 399–432.

Guest, D.E., & Woodrow, C. (2012). Exploring the boundaries of human resource managers' responsibilities. *Journal of Business Ethics*, *111*(1), 109–119.

Harms, P.D., Credé, M., Tynan, M., Leon, M., & Jeung, W. (2017). Leadership and stress: A meta-analytic review. *The Leadership Quarterly*, *28*(1), 178–194.

He, W., Fehr, R., Yam, K.C., Long, L.-R., & Hao, P. (2017). Interactional justice, leader-member exchange, and employee performance: Examining the moderating role of justice differentiation. *Journal of Organizational Behavior*, *38*(4), 537–557.

Her Majesty's Inspectorate of Prisons. (2019). *HM Chief Inspector of Prisons for England and Wales Annual Report 2018-19*. Her Majesty's Inspectorate of Prisons.

HM Chief Inspector of Prisons for England and Wales. (2020). *HM Chief Inspector of Prisons for England and Wales Annual Report 2019-20*. Stationary Office.

Holtz, B.C., & Harold, C.M. (2009). Fair today, fair tomorrow? A longitudinal investigation of overall justice perceptions. *Journal of Applied Psychology*, *94*(5), 1185–1199.

Hu, L., & Bentler, P.M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, *3*(4), 424–453.

Hu, L., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1–55.

Hu, Q., Schaufeli, W.B., & Taris, T.W. (2011). The Job Demands–Resources model: An analysis of additive and joint effects of demands and resources. *Journal of Vocational Behavior*, *79*(1), 181–190.

Hu, Q., Schaufeli, W.B., & Taris, T.W. (2013). Does equity mediate the effects of job demands and job resources on work outcomes?: An extension of the job demands-resources model. *Career Development International*, *18*(4), 357–376.

Hu, S., Wang, J.-N., Liu, L., Wu, H., Yang, X., Wang, Y., & Wang, L. (2015). The association between work-related characteristic and job burnout among Chinese correctional officers: A cross-sectional survey. *Public Health*, *129*(9), 1172–1178.

Huang, J., Wang, Y., & You, X. (2016). The job demands-resources model and job burnout: The mediating role of personal resources. *Current Psychology*, *35*(4), 562–569.

Iversen, A.C., Van Staden, Hughes, S.L., Greenberg, J.H., Hotopf, N., Rona, M., Thornicroft, R.J., . . . Fear, S. (2011). The stigma of mental health problems and other barriers to care in the UK Armed Forces. *BMC Health Services Research*, *11*(1), 31.

James, L., & Todak, N. (2018). Prison employment and post-traumatic stress disorder: Risk and protective factors. *American Journal of Industrial Medicine*, *61*(9), 725–732.

Johnson, S., Cooper, C., Cartwright, S., Donald, I., Taylor, P., & Millet, C. (2005). The experience of work-related stress across occupations. *Journal of Managerial Psychology*, *20*(2), 178–187.

Jolly, P.M., Kong, D.T., & Kim, K.Y. (2021). Social support at work: An integrative review. *Journal of Organizational Behavior*, *42*(2), 229–251.

Judge, T.A., & Colquitt, J.A. (2004). Organizational Justice and Stress: The Mediating Role of Work-Family Conflict. *Journal of Applied Psychology*, *89*(3), 395–404.

Karam, E.P., Hu, J., Davison, R.B., Juravich, M., Nahrgang, J.D., Humphrey, S.E., & Scott Derue, D. (2019). Illuminating the 'Face' of Justice: A Meta-Analytic Examination of Leadership and Organizational Justice. *Journal of Management Studies*, *56*(1), 134–171.

Kinman, G., Clements, A.J., & Hart, J. (2014). *POA members work-related stress and wellbeing survey*. London: POA.

Kinman, G., Clements, A.J., & Hart, J. (2017a). Job demands, resources and mental health in UK prison officers. *Occupational Medicine (Oxford, England)*, *67*(6), 456–460.

Kinman, G., Clements, A.J., & Hart, J. (2017b). Working conditions, work–life conflict, and well-being in u.k. Prison officers: The role of affective rumination and detachment. *Criminal Justice and Behavior*, *44*(2), 226–239.

Kinnunen, U., Feldt, T., Siltaloppi, M., & Sonnentag, S. (2011). Job demands–resources model in the context of recovery: Testing recovery experiences as mediators. *European Journal of Work and Organizational Psychology*, *20*(6), 805–832.

Klinoff, V.A., Van Hasselt, V.B., Black, R.A., Masias, E.V., & Couwels, J. (2018). The assessment of resilience and burnout in correctional officers. *Criminal Justice and Behavior*, *45*(8), 1213–1233.

Koopman, J., Matta, F.K., Scott, B.A., & Conlon, D.E. (2015). Ingratiation and popularity as antecedents of justice: A social exchange and social capital perspective. *Organizational Behavior and Human Decision Processes*, *131*, 132–148.

Kunst, M.J.J. (2011). Working in prisons: A critical review of stress in the occupation of correctional officers. In J. Langan-Fox, and C.L. Cooper (Eds.), *Handbook of stress in the occupations* (pp. 241–283). Cheltenham: Edward Elgar.

Lambert, E.G. Altheimer, I., & Hogan, N.L. (2010). Exploring the relationship between social support and job burnout among correctional staff. *Criminal Justice and Behavior*, *37*(11), 1217–1236.

Lambert, E.G. Keena, L.D., Haynes, S.H., May, D., Ricciardelli, R., & Leone, M. (2019). Testing a path model of organizational justice and correctional staff job stress among Southern Correctional Staff. *Criminal Justice and Behavior*, *46*(10), 1367–1384.

LaMontagne, A.D., Keegel, T., Louie, A.M., Ostry, A., & Landsbergis, P.A. (2007). Intervention evaluation literature, 1990–2005. *International Journal of Occupational and Environmental Health*, *13*(3), 268–280.

Lazarus, R.S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.

Le, H., Palmer Johnson, C., & Fujimoto, Y. (2021). Organizational justice and climate for inclusion. *Personnel Review*, *50*(1), 1–20.

Lee, J., Henning, R., & Cherniack, M. (2019). Correction workers' burnout and outcomes: A Bayesian network approach. *International Journal of Environmental Research and Public Health*, *16*(2), 1–14.

Lesener, T., Gusy, B., & Wolter, C. (2019). The job demands-resources model: A meta-analytic review of longitudinal studies. *Work and Stress*, *33*(1), 76–103.

Lewis, R., Yarker, J., Donaldson-Feilder, E., Flaxman, P., & Munir, F. (2010). Using a competency-based approach to identify the management behaviours required to manage workplace stress in nursing: A critical incident study. *International Journal of Nursing Studies*, *47*(3), 307–313.

Li, J., Zhang, M., Loerbroks, A., Angerer, P., & Siegrist, J. (2015). Work stress and the risk of recurrent coronary heart disease events: A systematic review and meta-analysis. *International Journal of Occupational Medicine and Environmental Health*, *28*(1), 8–19.

Liu, S., Luksyte, A., Zhou, L., Shi, J., & Wang, M. (2015). Overqualification and counterproductive work behaviors: Examining a moderated mediation model. *Journal of Organizational Behavior*, *36*(2), 250–271.

Martin, J.L., Lichtenstein, B., Jenkot, R.B., & Forde, D.R. (2012). "They can take us over any time they want": Correctional officers' responses to prison crowding. *Prison Journal*, *92*(1), 88–105.

Maslach, C., Jackson, S.E., & Leiter, M.P. (1996). *Maslach Burnout Inventory manual* (3rd ed.). Palo Alto: Consulting Psychologists Press.

Maslach, C., Schaufeli, W.B., & Leiter, M.P. (2001). Job burnout. *Annual Review of Psychology*, *52*(1), 397–422.

Ministry of Justice. (2021). *Her Majesty's Prison and Probation Service workforce quarterly: March 2021*. Accessed14 July 2021, https://www.gov.uk/government/statistics/her-majestys-prison-and-pro bation-service-workforce-quarterly-march-2021/her-majestys-prison-and-probation-service-workforce-quarterly-march-2021 .

Misis, M., Kim, B., Cheeseman, K., Hogan, N.L., & Lambert, E.G. (2013). The impact of correctional officer perceptions of inmates on job stress. *SAGE Open*, *3*(2), 1–13.

Nahrgang, J.D., Morgeson, F.P., & Hofmann, D.A. (2011). Safety at work: A meta-analytic investigation of the link between job demands, job resources, burnout, engagement, and safety outcomes. *Journal of Applied Psychology*, *96*(1), 71–94.

Niehoff, B.P., & Moorman, R.H. (1993). Justice as a Mediator of the Relationship between Methods of Monitoring and Organizational Citizenship Behavior. *Academy of Managent Journal*, *36*(3), 527–556.

Nielsen, K., & Miraglia, M. (2017). What works for whom in which circumstances? On the need to move beyond the 'what works?' question in organizational intervention research. *Human Relations*, *70*(1), 40–62.

Penal Reform International. (2019). *Global prison trends 2019*. London: Penal Reform International.

Pérez-Rodríguez, V., Topa, G., & Beléndez, M. (2019). Organizational justice and work stress: The mediating role of negative, but not positive, emotions. *Personality and Individual Differences*, *151* (April), 109392.

POA. (2021). *Welcome to the POA*. Accessed16 August 2021. https://www.poauk.org.uk/

Podsakoff, N.P., Lepine, J.A., & Lepine, M.A. (2007). Differential challenge stressor-hindrance stressor relationships with job attitudes, turnover intentions, turnover, and withdrawal behavior: A meta-analysis. *Journal of Applied Psychology*, *92*(2), 438–454.

Poon, J.M.L. (2012). Distributive justice, procedural justice, affective commitment, and turnover intention: A mediation-moderation framework. *Journal of Applied Social Psychology*, *42*(6), 1505–1532.

Renwick, D. (2003). HR managers: Guardians of employee wellbeing? *Personnel Review*, *32*(3), 341–359.

Robertson, I.T., Cooper, C.L., Sarkar, M., & Curran, T. (2015). Resilience training in the workplace from 2003 to 2014: A systematic review. *Journal of Occupational and Organizational Psychology*, *88*(3), 533–562.

Sallis, A., & Birkin, R. (2014). Experiences of work and sickness absence in employees with depression: An interpretative phenomenological analysis. *Journal of Occupational Rehabilitation*, *24*(3), 469–483.

Schaufeli, W.B. (2015). Engaging leadership in the job demands-resources model. *Career Development International*, *20*(5), 446–463.

Schiff, M., & Leip, L. (2019). The impact of job expectations, workload, and autonomy on work-related stress among prison wardens in the United States. *Criminal Justice and Behavior*, *46*(1), 136–153.

Siegrist, J., & Li, J. (2016). Associations of extrinsic and intrinsic components of work stress with health: A systematic review of evidence on the effort-reward imbalance model. *International Journal of Environmental Research and Public Health*, *13*(4), 1–15.

Soltis, S.M., Agneessens, F., Sasovova, Z., & Labianca, G. (2013). A social network perspective on turnover intentions: The role of distributive justice and social support. *Human Resource Management*, *52*(4), 561–584.

Steiner, B., & Wooldredge, J. (2015). Individual and environmental sources of work stress among prison officers. *Criminal Justice and Behavior*, *42*(8), 800–818.

Szucs, D., & Ioannidis, J.P.A. (2017). When null hypothesis significance testing is unsuitable for research: A reassessment. *Frontiers in Human Neuroscience*, *11*, 1–21.

Taxman, F.S., & Gordon, J.A. (2009). Do fairness and equity matter?: An examination of organizational justice among correctional officers in adult prisons. *Criminal Justice and Behavior*, *36*(7), 695–711.

Toderi, S., Gaggia, A., Balducci, C., & Sarchielli, G. (2015). Reducing psychosocial risks through supervisors' development: A contribution for a brief version of the "Stress Management Competency Indicator". *Science of the Total Environment, The*, *518-519*, 345–351.

Van Selm, M., & Jankowski, N.W. (2006). Conducting online surveys. *Quality and Quantity*, *40*(3), 435–456.

Vanhove, A.J., Herian, M.N., Perez, A.L.U., Harms, P.D., & Lester, P.B. (2016). Can resilience be developed at work? A meta-analytic review of resilience-building programme effectiveness. *Journal of Occupational and Organizational Psychology*, *89*(2), 278–307.

White, L.M., Aalsma, M.C., Holloway, E.D., Adams, E.L., & Salyers, M.P. (2015). Job-related burnout among juvenile probation officers: Implications for mental health stigma and competency. *Psychological Services*, *12*(3), 291–302.

Wright, L., Borrill, J., Teers, R., & Cassidy, T. (2006). The mental health consequences of dealing with self-inflicted death in custody. *Counselling Psychology Quarterly*, *19*(2), 165–180.