



The role of prison officers' regulation of inmates affect on their exposure to violent behaviours and the development of PTSD symptoms

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ABSTRACT

Background: Interactions with inmates are a major source of stress for prison officers. Given the conflicting nature of this relationship, violent behaviours towards prison officers are not uncommon, posing a threat to their psychological well-being.

Objective: This study analyses the role that the strategies prison officers use to regulate inmates' emotions have on the frequency of inmates' violent behaviour and on the presence of posttraumatic stress symptoms in prison officers. Based on interactional models of emotional regulation, a model is proposed in which interpersonal regulation has an indirect effect on PTSD symptoms mediated by the response of the inmate.

Method: A total of 424 prison officers employed at 5 Uruguayan prisons completed a questionnaire.

Results: The results confirm that emotional regulation strategies are related to inmates' violent behaviour, which in turn affects prison officers' PTSD symptoms. In particular, prison officers use of strategies to improve inmates' affect reduces the level of inmate's violent behaviours that mediate the negative relationship between affect-improving strategies and officers' PTSD symptoms. The mediating role of inmates' violent behaviour is also confirmed for the positive relationship between affect-worsening strategies and PTSD symptoms. Unexpected results for affect-worsening strategies suggest the presence of a conflict escalation cycle.

Conclusion: The impact of the interpersonal regulation of the affect of inmates on the quality of prison officer-inmate relationships and on the exposure of prison officers to potentially traumatic violent events must be taken into account in the analysis of PTSD symptom development. The practical implications for the reduction of the exposure to potentially traumatic violent events and the prevention of PTSD symptoms among prison officers are discussed.

El rol de la regulación del afecto de los reclusos por los oficiales de prisiones sobre su exposición a conductas violentas y el desarrollo de síntomas de trastorno de estrés postraumático

Antecedentes: Las interacciones con los reclusos son una fuente importante de estrés para los oficiales de prisiones. Dada la naturaleza conflictiva de esta relación, las conductas violentas contra los oficiales de prisiones no son infrecuentes, constituyendo un riesgo a su bienestar psicológico.

Objetivo: Este estudio analiza el rol que desempeñan las estrategias empleadas por los oficiales de prisiones para regular las emociones de los reclusos sobre la frecuencia de la conducta violenta de los reclusos y sobre la presencia de síntomas de trastorno de estrés postraumático (TEPT) en oficiales de prisiones. Basados en modelos de interacción de regulación emocional, se propone un modelo en el cual la regulación interpersonal tiene un efecto indirecto sobre los síntomas de TEPT mediados por las respuestas de los reclusos.

Métodos: Un total de 424 oficiales de prisiones trabajadores de cinco prisiones uruguayas completaron un cuestionario.

Resultados: Los resultados confirman que las estrategias de regulación emocional están relacionadas con la conducta violenta de los reclusos, lo cual, a su vez, afecta los síntomas de TEPT de los oficiales de prisiones. En particular, el uso de estrategias para mejorar el afecto de los reclusos por parte de los oficiales de las prisiones reduce el nivel de la conducta violenta de los reclusos que median la relación negativa entre las estrategias para mejorar el afecto y los síntomas de TEPT en los oficiales. El rol mediador del comportamiento violento de los reclusos también fue confirmado por la relación positiva entre las estrategias que empeoran los afectos y los síntomas de TEPT. Los resultados inesperados de estrategias que pueden empeorar el afecto sugieren la presencia de un ciclo de intensificación de conflictos.

Conclusión: El impacto de la regulación interpersonal del afecto de los reclusos sobre la calidad de las relaciones entre ellos y los oficiales de prisiones, y sobre la exposición de los oficiales a eventos violentos potencialmente traumáticos deben ser considerados en el análisis

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HIGHLIGHTS

- The development of interpersonal emotional regulation skills by prison officers can contribute to improvements in the quality of their relationships with inmates and enhance the well-being of all involved, reducing the risk of negative interactive cycles for both actors.

del desarrollo de los síntomas de TEPT. Se discuten las implicaciones prácticas para la reducción de la exposición a eventos violentos potencialmente traumáticos y la prevención de los síntomas de TEPT en los oficiales de prisiones.

狱警对囚犯的监管在其暴露于暴力行为和 PTSD 症状发展的作用

背景:与囚犯的互动是狱警压力的主要来源。鉴于这种关系的矛盾性质, 针对狱警的暴力行为并不少见, 对其身心健康构成威胁。

目的:本研究分析了狱警用来调节囚犯情绪的策略对囚犯的暴力行为频率和狱警中出现创伤后应激症状的作用。基于情绪调节的交互模型, 提出了一种人际调节通过囚犯反应中介间接影响 PTSD 症状的模型。

方法:共有 424 名受雇于乌拉圭 5 所监狱的狱警完成了一份问卷。

结果:结果证实, 情绪调节策略与囚犯的暴力行为有关, 进而影响狱警的 PTSD 症状。特别是, 狱警用改善囚犯情绪的策略会降低中介了情绪改善策略与狱警 PTSD 症状之间负相关的囚犯暴力行为水平。情绪恶化策略与 PTSD 症状之间的正相关也证实了囚犯暴力行为的中介作用。情绪恶化策略的意外结果表明存在冲突升级循环。

结论:在分析 PTSD 症状发展时, 必须考虑囚犯情绪的人际关系调节对狱警与囚犯关系质量以及狱警暴露于潜在创伤性暴力事件的影响。讨论了在狱警中减少暴露于潜在创伤性暴力事件和预防 PTSD 症状的实际意义。

1. Introduction

One of the bubble officers told me, 'I have a headache because you keep asking me for things' and I said, 'I don't know what you mean, I haven't seen you all day and I've never asked you for anything.' He just got mad and told me to mind my own business. What the hell? He started it and I just pointed out that he was wrong.

The other day, an inmate told this guard to go fuck himself and we all stopped to see what he'd say and he turned around and said, 'I love you too.' We all laughed our ass off. That's how they should handle these guys. Just mock them and take the wind out of their sails. Inmates at the Nebraska Penitentiary.

In Trammell, Vandenberg, and Ludden (2012), p. 45–46.

The above extracts from prisoners' interviews serve as typical examples of some of the conflictive interactions that prison officers face in their daily work activities. The experience of confinement often renders inmates susceptible to experiencing negative emotions such as resentment, anger or regret, which prison officers have to manage as part of their job role (Crawley, 2004). Episodes of violence are not a rare outcome of such conflictive interactions and vary both in the type of violence involved, whether verbal or physical, and in their intensity, ranging from verbal threats to life-threatening attacks (Kinman, Clements, & Hart, 2017; Sorensen et al., 2011). This hazard is present in prisons worldwide and may reach extreme levels in overcrowded and understaffed centres or with in locations with high incidences of inmates with mental health and behavioural problems (Dammert, 2015; Wolff, Shi, & Bachmand, 2008; DAP, 2010; Referencia de francia; Cox, Paulus, McCain, & Karlovac, 1982; Franklin, Franklin, & Pratt, 2006; Juanche & Palumo, 2012; Martin, Lichtenstein, Jenkot, & Forde, 2012; Mesa de Trabajo sobre Mujeres Privadas de Libertad [MTMPL], 2006). Sustained

exposure to manifestations of verbal abuse (e.g. insults or threats) or to high-intensity incidents of physical violence (e.g. assaults) from inmates can lead to traumatic incidents and render prison officers vulnerable to the development of persistent stress symptoms over time, such as posttraumatic stress (Blitz, Wolff, & Shi, 2008; Boudoukha, Altintas, Rusinek, Fantini,-Huawel, & Hautekeete, 2013; Boudoukha, Przygodzki-Lionet, & Hautekeete, 2016). Conflictive interactions with inmates, along with other facets of prison officers' working conditions, make their profession one of the occupations involving the greatest exposure to stressors (Adwell & Miller, 1985; Cheek & Miller, 1983; Johnson et al., 2005; Harenstam, Palm, & Theorell, 1988). Analysing how prison officers manage their interactions with inmates is relevant to understanding one of the main stressors experienced in their work (Dowden & Tellier, 2004; Muzavazi, 2016). Bearing in mind that a fundamental proportion of the factors that generate conflict in this relationship are structural and beyond the control of prison officials (e.g. disciplinary regimes and confinement) (Bottoms, 1999; Sparks, Bottoms, & Hay, 1996), the role of prison officers' behaviours in incidences of violent inmate behaviours is relevant both from a theoretical and an applied point of view.

1.1. Officers' regulation of inmates' affect and violent behaviour

Insofar as prison officers constitute the front line of the institution, a significant portion of manifestations of violence from inmates is directed at prison officers, regardless of their responsibility for the situation causing the violence (Bottoms, 1999; Porporino, 1986; Serin, 1991). In their study of severe episodes of aggression involving U.S. prisoners, Sorensen et al. (2011) found officers' commands and other prior

behaviours to be among the factors that increased the likelihood of violent outbursts for 27.8 and 10.1% of severe assault episodes, respectively. Trammell et al. (2012) identified the perceptions of disrespectful behaviour by officers as inmates' main motivation for assaulting prison officers. In an institutional context such as that of prisons, the ways in which prison officers manage their daily interactions with inmates can be key for reducing the frequency with which inmates' confinement conditions lead to manifestations of violence.

The relationship between a prison officer and inmate develops in a context of conflictive interests, wherein the officer is responsible for the control of the inmate's behaviour. Prison officers are required to manage people who may be uncooperative, hostile or aggressive (Dierdorff & Ellington, 2008). The ways in which prison officers react to tense situations in their relationships with inmates may be associated with the evolution of tension representing either escalation or de-escalation. As described in the first excerpt, a prison officer may handle an inmate's constant demands by pointing out that their behaviour has negative consequences for the officer (i.e. a headache), aggravating the inmate's anger. In contrast, the second excerpt reflects a situation where a prison officer uses humour to reduce tension in the face of an inmate who is disrespectful and provocative to the officer. These situations had opposite outcomes. In the first case, where the officer made the prisoner feel worse, tensions increased with a consequent risk of violence. In the second case, the use of humour dissipated the tension and neutralized the situation. Although these are, of course, specific examples and it is not possible to expect the same outcomes to result from other episodes, these examples illustrate how the consequences of officers' behaviours on the emotions of inmates can contribute to the evolution of such relationships and the emergence of episodes of violence.

In a qualitative study of a sample of prison officers, Nylander, Lindberg, and Bruhn (2011) found officers' awareness of the importance of managing the emotional impacts of their behaviours on inmates in reducing the likelihood of violent incidents. Participants described how some of their behaviours (e.g. acting provocatively) may cause conflicts throughout the day. Even the use of humour to release tension and relax the atmosphere must be carefully handled by adopting a 'low-key style'. This style implies a successive approach to the inmate, ensuring that the officer's behaviour does not increase the likelihood of a violent response from the inmate. This low-key style is deemed especially relevant in situations where the officer's behaviour (e.g. reporting a refusal of the inmate's application) could intensify the inmate's frustration or anger. The omission of certain

behaviours also contributes to an increase in conflict in the relationships between officers and inmates. Prison officers describe how actively trying to console inmates experiencing deeply low moods or after receiving adverse news is a behaviour that is expected to reduce the strain on the inmate (Nylander et al., 2011).

The interactions between prison officers and inmates and, specifically, the impact of officers' behaviours on inmates' emotions, appear to be relevant for understanding when conditions of confinement spur violent behaviours.

Models of interpersonal and intergroup conflicts highlight the relevance of emotions in the escalation or de-escalation of conflict. The regulation of emotions triggered by conflict is associated with the degree of intensification and the likelihood of the emergence of violent behaviours (Halperin, Sharvit, & Gross, 2011). Such models identify negative emotions (e.g. fear and anger) as potential escalators of conflict. In contrast, positive emotions (e.g. hope) may contribute to de-escalation (Berkowitz & Harmon-Jones, 2004). These effects of emotion on conflict dynamics are explained by cognitive bias on the appraisal of a particular event associated with the emotional experience (Bar-Tal et al., 2007; Lerner & Keltner, 2000). According to transactional models of emotions, emotional experiences derive from the appraisal of a particular event as relevant to an individual's goals (Folkman & Lazarus, 1991; Lazarus & Folkman, 1984; Perrewé & Zellars, 1999). When an individual perceives an event as threatening the achievement of a relevant goal, negative emotions appear and motivate the individual's behaviour to remove the obstacle, whereas an event increasing the likelihood of attaining a goal generates positive emotions.

Drawing on these models, it is expected that officers' induction of negative emotions in inmates should enhance perceptions of such interactions as threatening and the likelihood of inmates' violent behaviour (Roseman, 2002). In contrast, the induction of positive emotions (e.g. hope) may reduce inmates' frustration, reducing the risk of violent responses. From this perspective, the analysis of prison officers' regulation of inmates' emotions must be considered in understanding the dynamics of prison officers' relationships with inmates, including the expression of violent behaviours.

Evidence from research on emotional intelligence shows that individuals' abilities to regulate others' emotions are important for managing social encounters and promoting positive social interactions (Cunningham, 1988; Keltner & Haidt, 2001; Lopes, Salovey, Coté, & Beers, 2005). As individuals differ in their abilities to use successful emotion regulation strategies (Mayer & Salovey, 1997), these differences might explain prison officers' varying exposure to

inmates' violent behaviour depending on how efficiently they regulate inmates' emotions.

In some cases, the processes that influence others' emotions take place unconsciously or automatically (Beckes & Coan, 2011; Hatfield, Cacioppo, & Rapson, 1994). However, sometimes individuals adopt behaviours with the intention of generating certain feelings in another person (Hofman, Carpenter, & Curtiss, 2016; Little, Kluemper, Nelson, & Gooty, 2011; Niven, Totterdell, & Holman, 2007; Zaki & Williams, 2013). Niven, Totterdell and Holman (2007) showed that the intentional interpersonal regulation of affect is common in relationships between inmates and officers and has relevant consequences for the well-being of those involved and the quality of such relationships.

Deliberate attempts to regulate or manage the emotions or moods of another person can be based on a wide range of behaviours. Niven, Totterdell, and Holman (2009) found that individuals use almost four hundred distinct behaviours that can be classified into two broad categories. First, individuals may deliberately try to improve another person's affect by using affect-improving strategies. The second category corresponds with individuals' behaviours deliberately intended to worsen another person's affect using affect-worsening strategies (Niven, Totterdell, Stride, & Holman, 2011). Among the behaviours used for the execution of these strategies are some directly related to the evolution of the intensity of conflict. Mackie, Devos, and Smith (2000) found that emphasizing the relative strength of the in-group reduces the likelihood of confrontation. In the case of interpersonal conflict, pointing out the strengths of an inmate coping with a difficult situation – an affect-improving behaviour – can reduce his or her level of fear and the likelihood of violent behaviour. Spending time with an inmate, doing something for an inmate, or other strategies for improving affection can have the same effect on the dynamics of relationships between prison officers and inmates. In the case of affect-worsening strategies, highlighting the negative consequences of an inmates' behaviour, ignoring their demands or being rude may intensify feelings of anger and perceptions of not responding to risk, an overestimation of an attack's positive outcomes, or a reduced perception of risks of violent behaviour (Cheung-Blunden & Blunden, 2008; Huddy, Feldman, & Cassese, 2007). Although other negative emotions such as fear elicited by affect-worsening strategies may be effective at decreasing the likelihood of an aggressive response and motivating avoidance behaviours in the short term (Frijda, Kuipers, & Ter Schure, 1989; Watson, Wiese, Vaidya, & Tellegen, 1999), in a prison environment, where avoidance and the creation of safe environments are difficult to achieve, their effectiveness in reducing conflict in the long term is limited.

Previous research based on different organizational contexts (e.g. prisons, community mental health services, and hospitals) (Martínez-Iñigo et al., 2013; Martínez-Iñigo et al., 2018; Niven et al., 2007) and lab settings (Martínez-Iñigo et al., 2015) has shown that deliberately trying to influence other people's affect has consequences for the target, for the actor's well-being and for the quality of the relationship. Niven et al. (2007) found prison officers' use of affect-improving strategies to foster inmates' trust in them. Overall, the use of an affect-improving strategy helps alleviate negative emotions such as anger and fear, which reduces the level of strain and the likelihood of inmates' violent behaviours. In contrast, affect-worsening strategies intensify feelings of anger and fear, which may increase the risk of inmates' violent behaviours (Chemtob, Novaco, Hamada, Gross, & Smith, 1997; Lahm, 2008; Stefanile, Matera, Nerini, Puddu, & Raffagnino, 2017; Tartaro & Levy, 2007).

Based on the expected impact of prison officers' interpersonal regulation on inmates' emotional experience, we hypothesized that interpersonal affect regulation strategies should be related to the frequency of violence from inmates. In particular, we hypothesize that the use of affect-improving strategies will be related to lower levels of inmates' violence (H1a). In contrast, we expect the use of affect-worsening strategies will be related to higher frequencies of inmate violence (H1b).

1.2. Inmates' violent behaviour and officers' well-being

Inmates' violent behaviours constitute threatening experiences and traumatic events for prison officers (Blitz et al., 2008; Boudoukha et al., 2013, 2016). Consequently, we expect the frequency of inmates' violent behaviours to be positively related to the level of posttraumatic stress disorder in prison officers (H3).

1.3. Inmates' violent behaviours the relationship between officers' interpersonal affect regulation and well-being

Interpersonal affect regulation strategies have also been related to emotions signalling poor well-being for prison officers and inmates (Niven et al., 2007). These effects impact not only the target of the interpersonal affect strategy but also the actor (the person performing the strategy). Affect-worsening strategies are related to higher levels of misery and decreased levels of hope and calmness in actors, whereas affect-improving strategies create the opposite pattern in relationships, enhancing feelings of hope and calmness (Niven et al., 2007). Martínez-Iñigo et al. (2015) found

the use of affect-worsening strategies to be related to higher levels of emotional exhaustion among the staff attending to persons with acute mental disorders. For affect-improving strategies, the relationship was significant only when the effects of the target's positive feedback were controlled for. The explanation for this relationship between the intentional regulation of others' affect and the well-being of the actor mainly relies on the interactional nature of emotion regulation. Although both kinds of strategies require self-regulation effort and may become ego-depleting for actors (Baumeister, Bratslavsky, Muraven, & Tice, 1998), the higher levels of positive feedback associated with affect-improving strategies buffer actors' emotional depletion (Hobfoll, 1989). Coté's (2005) social interaction model of emotion regulation uses the social dynamics of emotion in explaining the consequences of emotion regulation for job well-being. According to this model, interpersonal consequences are mainly related to the impact that emotion regulation has on the target's response (Rafaeli & Sutton, 1987, 1989). The interactional model describes interpersonal encounters as a feedback loop where the targets of emotional influence responses have a direct effect on the actors' strain. In prison officer-inmate interactions, attempts from the former to intentionally influence the emotions of the latter determine the likelihood of a particular kind of feedback, whether negative or positive. When the targets' response is a conflictual behaviour, the actor's level of strain increases, consequently increasing the hazard of well-being impairment. In contrast, when the target's response is positive, the actor's degree of strain decreases. In addition, for an increase of the level of strain, Conservation of Resource Model evidence shows that target feedback is a key mechanism explaining the final impact of emotion regulation on the actor's well-being (Hobfoll, 1989). Positive feedback contributes to the recovery of self-regulation resources depleted from the regulation of emotions and might ameliorate the impact of emotion regulation on actors' well-being. Negative feedback inhibits this recovery mechanism.

Evidence from longitudinal and experimental designs shows that affect-improving strategies are related to more positive feedback from the target, whereas affect-worsening strategies reduce the target's positive feedback, supporting the role of positive feedback in the differential effect of strategies on the actor's well-being (Martínez-Iñigo et al., 2013; Martínez-Iñigo et al., 2015, 2018).

Although there is evidence for the impact of actors' interpersonal regulation and targets' positive feedback on actors' well-being, research has neglected the

consequences of negative feedback. Our research analyses whether negative feedback from inmates, measured as violent behaviour, can help explain the relationship between prison officers' use of interpersonal affect regulation strategies and their own well-being, measured as posttraumatic stress symptoms.

Our study tests a meditational model in which the relationship between prison officers' use of interpersonal strategies to regulate inmates' affect and their posttraumatic stress symptoms is mediated by inmates' violent behaviours. In particular, we hypothesize that the use of affect-improving strategies will reduce the level of inmate violence, which in turn will reduce the prison officer's posttraumatic stress symptoms (H4a). For the affect-worsening strategy, we expect the associated increase in violence to mediate its negative impact on posttraumatic stress symptoms (H4b).

2. Method

2.1. Participants and procedure

A total of 424 prison officers employed at five different Uruguayan prison centres participated in the study. In total, 40.7% of the participants were women. The mean age of the officers was 41.55 years ($Sd = 7.14$ years). The participants completed an anonymous online questionnaire as recommended when sensitive issues were investigated, and the confidentiality of their responses was ensured (Baruch & Holtam, 2008). The ethical aspects of the study were evaluated by those responsible for prison affairs at the Uruguayan Ministry of the Interior. Participants were contacted at their workplaces, and informed consent was required before filling out the questionnaire. Participation was voluntary. Prison officers agreed to participate in the study and each filled out the questionnaire alone, in an otherwise empty room, without the presence of any other person. The participants were instructed to close the survey navigator after completing the questionnaire to ensure that no one else from the institution could access their answers, which were electronically sent to and stored on a remote university server.

2.2. Variables and instruments

2.2.1. Interpersonal affect regulation

Affect-improving and affect-worsening strategies were measured with the 12-item Emotion Regulation of Others Scale (Niven et al., 2011). Participants were asked to rate the extent to which they had used 6 strategies (e.g. 'I gave someone advice to improve how they felt') to improve inmates' affect and 6 strategies to worsen inmates' affect (e.g. 'I acted annoyed towards the inmate to try to make them feel worse' or

'I complained to the inmate about their behaviour to try to make them feel worse') over the past two weeks on a 5-point scale (1 = *not at all*, 3 = *a moderate amount*, and 5 = *a great deal*). The internal consistency of affect-improving strategies was $\alpha = .81$, and that of affect-worsening strategies was $\alpha = .89$.

2.2.2. Inmates' violent behaviours

Four items from Einarsen, Hoel, and Notelaers (2009) Negative Acts Questionnaire-Revised were adapted to assess inmates' verbal abuse (being ignored or facing a hostile reaction; being shouted at or the target of spontaneous anger; intimidating behaviours such as finger pointing; and threats of physical abuse). Four items were developed to measure inmates' physical violence (an inmate has tried to physically assault you; an inmate has hit or pushed you; an inmate has seriously injured you; and an inmate has put your life at risk). The same response format was used to measure verbal abuse. Participants were required to rate how frequently they had been exposed to such behaviour from inmates over the last three months on a 5-point scale (1 = *never*, 3 = *sometimes*, and 5 = *very frequently*). The internal consistency of this measure was $\alpha = .92$.

2.2.3. Posttraumatic stress symptoms

The Spanish version of the 17 Posttraumatic Stress Disorder Checklist (Marshall, 2004) was used. Participants were instructed to rate how frequently they had experienced each of the 17 symptoms described on a 5-point scale (1 = *never*, 3 = *sometimes*, and 5 = *very frequently*). The internal consistency of this measure was $\alpha = .95$.

2.3. Analysis

Structural equation modelling (SEM) was conducted (Cheung & Lau, 2008) with AMOS 23.0 to test whether inmates' violent behaviours mediated the relationship between prison officers' regulation of inmates' emotions and officers' posttraumatic stress symptoms. The mediation model was tested separately for each strategy (affect-improving and affect-worsening strategies). The direct effects of interpersonal affect regulation on posttraumatic symptoms were estimated because such estimation was necessary to test the hypothesized indirect effects (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). Bootstrapping resampling with 5000 samples was conducted to estimate the bias-corrected 95% confidence interval around the point of the estimation of indirect effects. Indirect effects were considered significant when the 95% confidence interval excluded zero (Cheung & Lau, 2008). The Kappa square value was computed to estimate the size of indirect effects (Preacher & Kelley, 2011).

Table 1. Mean, standard deviation and bivariate correlations for the study variables ($N = 424$).

Variable	Mean	Sd	1	2	3
1. Affect-Improving	3.28	.93			
2. Affect-worsening	1.55	.74	-.02		
3. Violence	1.94	.87	-.14**	.39**	
4. PTSD symptoms	2.08	.80	-.13*	.41**	.54**

To test the likelihood of reverse causation, SEM analyses were conducted using interpersonal emotion regulation strategies as mediators.

2.4. Results

Table 1 shows statistics and bivariate correlations for the studied variables. As expected, officers' use of affect-improving strategies was negatively related to inmates' levels of violent behaviour, whereas affect-worsening strategies were positively related to inmates' violent behaviours. Bivariate correlations between inmates' violence and posttraumatic stress symptoms were also significant and positive.

A confirmatory factor analysis was conducted to test the model of measurement and the distinctiveness of the measures used in the study (Diestel & Schmidt, 2012). A four-factor model representing affect-improving strategies, affect-worsening strategies, inmates' violent behaviour and prison officers' posttraumatic stress symptoms was tested. The results show excellent goodness-of-fit values ($\chi^2(455) = 819.17$, $p < .001$, RMSEA = .04, CI90% = .039 – .048, SRMR = .049, CFI = .96; TLI = .96).

An SEM mediation analysis was conducted to test the hypothesized relationship between affect-improving and affect-worsening strategies and inmates' violent behaviours (H1a and H1b, respectively). Moreover, the model tested the indirect effects of affect-improving strategies on prison officers' PTSD symptoms through their relationship with violent behaviour from inmates. The global fit of the model was found to be good ($\chi^2(456) = 819.89$, $p < .001$, RMSEA = .43, CI 90% = .00 – .09, SRMR = .049, CFI = .96, TLI = .95). As expected, affect-improving and affect-worsening strategies were negatively ($\beta = -.20$, $p < .001$) and positively ($\beta = .43$, $p < .001$) related to inmates' violent behaviours, respectively. H1a and H1b were supported.

As anticipated, affect-improving strategies' indirect effects on posttraumatic symptoms were significant ($\beta = -.06$, $p < .05$, $-.10$, $-.03$; 95%; $k^2 = .07$), supporting H4a. However, affect-improving strategies' direct effects on PTSD symptoms were not significant ($\beta = -.05$, $p = .25$), suggesting that violent behaviour fully mediates the relationship.

The indirect effects of affect-worsening strategies on officers' PTSD symptoms through violent behaviours were significant ($\beta = .14$, $p < .001$, .09, .21;

95%; $k^2 = .13$). The direct effects of affect-worsening strategies on PTSD symptoms were significant ($\beta = .28$, $p < .001$), suggesting partial mediation. Hypothesis 4b was supported.

These results support the notion that interpersonal affect regulation contributes to explaining prison officers' PTSD symptoms through its effect on inmates' violent behaviours.

To explore the presence of reverse causality, the same analysis was conducted using prison officers' interpersonal regulation strategies as a mediator of the relationship between inmates' violent behaviour and prison officers' posttraumatic stress symptoms. The direct effects of affect-improving strategies on posttraumatic stress symptoms were not significant ($\beta = -.04$, $p = .27$), showing that mediation effects were not significant. In contrast, indirect effects of inmates' violent behaviours on posttraumatic stress symptoms through affect-worsening strategies were significant ($\beta = .08$, $p < .001$, .05, .13; 95%; $k^2 = .08$). These results support a bidirectional relationship between affect-worsening strategies and inmates' violent behaviour, suggesting the presence of an escalation cycle between the levels of both variables.

3. Discussion

Our results highlight the importance of prison officers' interpersonal regulation of inmates' emotions in explaining inmates' levels of violent behaviour and their consequences for prison officers' well-being. Based on an interactional model (Coté, 2005) and previous research on the interpersonal consequences of emotion regulation, we expected deliberate attempts to influence inmates' affect to be related to their violent behaviours, contributing to the intensity of prison officers' posttraumatic stress symptoms. This study shows that prison officers' attempts to intentionally influence the emotions of inmates are related to the frequency of violent behaviour from inmates, which in turn is associated with the presence of posttraumatic stress symptoms among prison officers. We expected prison officers' deliberate attempts to improve inmates' affect to reduce their violent feedback, which in turn would reduce the incidence of posttraumatic stress in prison officers. In contrast, we also hypothesized that officers' deliberate attempts to induce negative emotions in inmates to increase the frequency of violent reactions, increasing the incidence of posttraumatic stress symptoms. The results confirm both hypotheses, showing that prison officers' management of inmate affect is a relevant factor not only for inmates' emotional experiences but also for inmates' violent behaviours and prison officers' well-being. Previous research has confirmed the presence of this 'boomerang effect' for positive feedback from patients

(Martínez-Iñigo et al., 2018, 2015). Our study is the first to show this effect in relation to negative feedback. Understanding the effects of the interpersonal regulation of affect on this kind of feedback is especially relevant in prison environments, where conflictive interactions between prison officers and inmates are common and where the consequences of conflict escalation can be severe (Boudoukha et al., 2016; Martin et al., 2012). Our results also contribute in expanding comprehension of the potential consequences of interpersonal affect regulation in interactions between prison officers and inmates. Previous research has established the impact of such regulation on inmates' emotional experiences, prison officers' well-being, and the quality of relationships between them. To our knowledge, the relationship between interpersonal affect regulation and posttraumatic stress symptoms has not been established before. The identification of prison officers' behaviours related to the incidence of posttraumatic stress symptoms is especially relevant given that other factors affecting prison environments are not under their control and are difficult to modify.

The unexpected bidirectional relationship between affect-worsening strategies and the violent behaviour of inmates suggests future lines of inquiry. This result is compatible with the cyclical dynamics illustrated in models on conflict escalation (Pruitt & Kim, 2004). It is possible that in some interactions, the violent behaviour of the inmate may trigger the use of affect-worsening strategies of the prison officer, which in turn intensifies the inmate's aggression. In a similar vein, Hareli and Rafaeli (2008) call for attention to 'emotion cycles' where emotion regulation affects the responses of the target, which in turn contributes to the actor's behaviour, and so on. Among the consequences of these cycles is the individuals' engagement with or avoidance of one another (Kuppens, Van Mechelen, & Meulders, 2004). In prison contexts, avoidance (flight behaviours) is not always viable, so mutual emotional influence could end up affecting the fight response cycle between prison officers and inmates. As part of such cycles, worsening strategies would contribute to the intensification of the initial response irrespective of which of the participants ignited the cycle, demonstrating the relevance of this strategy to the management of violence in the context of prison officer-inmate relationships. As Ilies, Johnson, Judge, and Keeney (2011) noted, 'field research that analyzes the dynamics through which individual traits and behaviors interact with discrete experiences, such as interpersonal conflict to predict affect attitudes and behavior is sorely lacking' (p. 56). In social psychology, consideration of the impact of relationships on the well-being of individuals has been called for to develop a stronger understanding of human behaviour (Berschied, 1999). The analysis of

the impact of inmates' feedback, associated with officers' attempts to regulate their emotions, on prison officers' well-being contributes to advancements in this direction.

From an applied perspective, our results support the effectiveness of integrating the regulation of inmates affect into prison officers' training programmes as a means to reduce violent behaviour and prevent the impairment of prison officers' well-being. A quasi experimental study of the effectiveness of a programme for improving the psychological well-being of prison officers has shown that improving their skills in regulating the emotions of inmates has a positive impact on their own well-being (Martinez-Iñigo & Crego, 2017). Further research will be necessary to confirm whether the reduction of inmates' violent behaviours is involved in the improvement of prison officers' well-being, as suggested by these results.

4. Limitations and future research

Although our study contributes to work considering the interpersonal dimension of prison officers' well-being, we note some important limitations of our findings. First, a cross-sectional design requires that established causal relationships be interpreted with utmost caution. Establishing the timing of interactions between prison officers and inmates would help establish the causal relationship between the behaviours of these actors. The implementation of observational studies would help capture the concrete order in which the sequence of behaviours manifests and the causal link between them, whether occurring from the prison officer to the inmate, vice versa, or, as models of conflict escalation suggest, bidirectionally. However, the characteristics of prison environments and the possible reactivity of actors in the presence of an external observer pose important challenges from a methodological point of view.

A second limitation concerns the source of the data used. Data were based on the perspective of one of the actors in the interaction. The implementation of experience-sampling studies in which both prison officers and inmates describe recent incidents of violence could help clarify the sequence of behaviours involved. As with observational studies, obtaining the consent and cooperation of both actors can be extremely complex. In this sense, our study provides a valuable first exploration of a question that future studies based on more complex designs should examine further.

A third limitation is related to the self-reported nature of the measure used and corresponding risks of common method bias. Constraints of the prison context made it impossible to obtain information from different informants (i.e. inmates) or at different

times to reduce common-method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). While not precluding the threat of common method variance, our CFA showed good fit indices for the measurement used in the study. Nevertheless, caution must be applied when interpreting the results.

A fourth limitation concerns the fact that the control of the variables in the study was insufficient due to our gathering of data in a natural setting. Future experimental studies might provide stronger support for the hypothesized relationships between the studied variables. The inclusion of measures of the proposed mechanisms, such as the emotional experiences of the inmates, would also help validate the proposed model. From an interpersonal perspective, it is important to note that the historical relationships between prison officers and inmates was not controlled for in this study. Any particular episodes of interpersonal emotional regulation take place within this broader and more stable framework. The negative impacts affect-worsening strategies may be attenuated when occurring within a relationship of trust and mutual respect, while they may be intensified when in an already conflictive relationship. Further studies might examine whether relationship characteristics, such as trust, moderate the relationship between prison officers' interpersonal regulation of affect and inmates' violent behaviour.

Finally, it is necessary to comment on the limitations of generalizing our conclusions to other contexts. We studied a sample of Uruguayan prison officials. Although Uruguay has made great efforts to transform and modernize its prison system (Parliamentary Prison Commissioner, 2917; Strengthening democratic governance at national and local levels, 2014), the conditions that inmates experience (e.g. overcrowding and limited technological equipment to control access to drugs) and the composition of the country's prison population (e.g. high percentage of inmates in pretrial detention and high incidences of mental health problems) could still differ from those of other countries, limiting the scope of our results (Folle, 2016). In addition, the evolution of the professional profile of prison officers in Uruguay may have an impact on the country's prison culture of rehabilitation and the quality of interactions between prison officers and inmates. Traditionally, Uruguayan prison officer corps have been composed of police officers. Over the last ten years, an intense process of professionalization has created specific corps of officers for the prison system. However, recent census data show that 69% of prison officer corps are composed of policemen (Bellenda et al., 2016; Departamento de Sociología Udelar, 2010; Vigna, 2016). Research conducted in other countries has shown that reorganizations of the penitentiary system may be related to changes in staff orientation towards inmates' rehabilitation (Moon & Maxwell,

2004). It is not yet fully known whether Uruguay's prison culture has evolved from a focus on surveillance and punishment towards a more rehabilitative approach and whether this might be directly related to the interactions between prison officials and prisoners. Bellenda et al. (2016) found a sample of 2,356 Uruguayan prison officers to believe that more than fifty percent of inmates cannot be rehabilitated despite the modernization process, where more than thirty percent agreed that the best means to interact with inmates is to be distant and firm. Future research should examine whether prison officers' orientation towards rehabilitation could affect how they interact with inmates (Bazemore & Dicker, 1994; Farkas, 1999), including the emotional strategies they use to regulate inmates' emotions and their feedback.

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Data Availability

The data that support the findings of this study are available from 10.17605/OSF.IO/CEXPD.

References

- Adwell, S. T., & Miller, L. E. (1985). Occupational burnout. *Corrections Today*, 47, 70–72.
- Bar-Tal, D., Halperin, E., & Rivera, J. (2007). Collective emotions in conflict situation: Societal implications. *Journal of Social Issues*, 63, 441–460. doi:10.1111/j.1540-4560.2007.00518
- Baruch, Y., & Holtam, B. C. (2008). Survey response rate levels and trends in organizational research. *Human Relations*, 61(8), 1139–1160. doi:10.1177/0018726708094863
- Baumeister, R. F., Bratslavsky, E., Muraven, M., & Tice, D. M. (1998). Self-control depletion: Is the active self a limited resource? *Journal of Personality and Social Psychology*, 74(5), 1252–1265. doi:10.1037/0022-3514.74.5.1252
- Bazemore, G., & Dicker, T. (1994). Explaining detention worker orientation: Individual characteristics, occupational conditions, and organizational environment. *Journal of Criminal Justice*, 22(4), 297–312. doi:10.1016/0047-2352(94)90078-7
- Beckes, L., & Coan, J. (2011). Social baseline theory: The role of social proximity in emotion and economy of action. *Social and Personality Psychology Compass*, 5(12), 976–988. doi:10.1111/j.1751-9004.2011.00400.x
- Bellenda, B., Meroni, A. L., Musto, C., Musto, L., Nauar, M., Piazza, S., & Vigna, A. (2016). *Operadores penitenciarios. Percepciones acerca de un perfil ocupacional en construcción [Prison operators. Perceptions about an occupational profile under construction]*. In M. A. Folle & A. Vigna (Eds.), *Cárceles en el Uruguay en el siglo XXI [Prisons in Uruguay in the 21st century]* (pp. 105–119). Biblioteca Plural Udelar: Montevideo.
- Berkowitz, L., & Harmon-Jones, E. (2004). Toward and understanding of the determinants of anger. *Emotion*, 4(2), 107–130. doi:10.1037/1528-3542.4.2.107
- Berschied, E. (1999). The greening of relationship science. *American Psychologist*, 54(4), 260–266. doi:10.1037/0003-066X.54.4.260
- Blitz, C. L., Wolff, N., & Shi, J. (2008). Physical victimization in prisons: The role of mental illness. *International Journal of Law and Psychiatry*, 31(5), 385–393. doi:10.1016/j.ijlp.2008.08.005
- Bottoms, A. E. (1999). Interpersonal violence and social order in prisons. *Crime & Justice*, 26, 205–282. doi:10.1086/449298
- Boudoukha, A. H., Altintas, E., Rusinek, S., Fantini-Huawel, C., & Hautekeete, M. (2013). Inmates-to-staff assaults, PTSD and burnout: Profiles of risk and vulnerability. *Journal of Interpersonal Violence*, 28(11), 2332–2350. doi:10.1177/0886260512475314
- Boudoukha, A. H., Przygodzki-Lionet, N., & Hautekeete, M. (2016). Traumatic events and early maladaptive schemas (EMS): Prison guard psychological vulnerability. *European Review of Applied Psychology*, 66(4), 181–187. doi:10.1016/j.erap.2011.05.004
- Cheek, F. E., & Miller, M. (1983). The experience of stress for correction officers: A double-bind theory of correctional stress. *Journal of Criminal Justice*, 11(2), 105–120. doi:10.1016/0047-2352(83)90046-6
- Chemtob, C. M., Novaco, R. W., Hamada, R. S., Gross, D. M., & Smith, G. A. (1997). Anger regulation deficits in combat-related post-traumatic stress disorder. *Journal of Traumatic Stress*, 10(1), 17–36. doi:10.1002/jts.2490100104
- Cheung, G. W., & Lau, R. S. (2008). Testing mediation and suppression effects of latent variables: Bootstrapping with structural equation models. *Organizational Research Methods*, 11(2), 296–325. doi:10.1177/1094428107300343
- Cheung-Blunden, V., & Blunden, B. (2008). The emotional construal of war: Anger, fear and other negative emotions. *Peace and Conflict—Journal of Peace Psychology*, 14(2), 123–150. doi:10.1080/10781910802017289
- Coté, S. (2005). A social interaction model of the effects of emotion regulation on work strain. *Academy of Management Review*, 30(3), 509–530. doi:10.5465/amr.2005.17293692

- Cox, V. C., Paulus, P. B., McCain, G., & Karlovac, M. (1982). The relationship between crowding and health. In A. Baum & J. P. Singer (Eds.), *Advances in environmental psychology* (Vol. 4, pp. 271–294). Hillsdale, NJ: Lawrence Erlbaum.
- Crawley, E. M. (2004). Emotion and Performance: Prison officers and the presentation of self in prison. *Punishment & Society*, 6(4), 411–427. doi:10.1177/1462474504046121
- Cunningham, M. R. (1988). What do you do when you're happy or blue? Mood, expectancies, and behavioral interest. *Motivation and Emotion*, 12(4), 309–331. doi:10.1007/BF00992357
- Dammert, L. (2015). *Sistemas carcelarios en America Latina: Avances y desafios. (Prison Systems in Latin America: Advances and Challenges)*. Santiago de Chile: Universidad Santiago de Chile: Chile.
- DAP. (2010). L'administration pénitentiaire en chiffres au 1er janvier 2010. Ministère de la Justice.
- Departamento de Sociología Udelar. (2010). I Censo Nacional de Reclusos [I National Census of Inmates]. Departamento de Sociología, UDELAR. Montevideo. https://www.tni.org/files/censo_reclusos_dic.pdf
- Dierdorff, E. C., & Ellington, J. K. (2008). It's the nature of the work: Examining behavior-based sources of work-family conflict across occupations. *Journal of Applied Psychology*, 93(4), 883–892. doi:10.1037/0021-9010.93.4.883
- Diestel, S., & Schmidt, K. H. (2012). Lagged mediator effects of self control demands on psychological strain and absenteeism. *Journal of Occupational and Organizational Psychology*, 85(4), 556–578. doi:10.1111/j.2044-8325.2012.02058.x
- Dowden, C., & Tellier, C. (2004). Predicting work-related stress in correctional officers: A meta-analysis. *Journal of Criminal Justice*, 32(1), 31–47. doi:10.1016/j.jcrimjus.2003.10.003
- Einarsen, S., Hoel, H., & Notelaers, G. (2009). Measuring exposures to bullying and harassment at work: Validity, factor structure and psychometric properties of the Negative Acts Questionnaire-Revised. *Work & Stress*, 23(1), 24–44. doi:10.1080/02678370902815673
- Farkas, M. (1999). Correctional officer attitudes toward inmates and working with inmates in a “get tough” era. *Journal of Criminal Justice*, 27(6), 495–506. doi:10.1016/S0047-2352(99)00020-3
- Folkman, S., & Lazarus, R. S. (1991). Coping and emotion. In A. Monat & R. S. Lazarus (Eds.), *Stress and coping: An anthology* (3rd ed., pp. 207–227). New York: Columbia University Press.
- Folle, M. A. (2016). Evaluación del proceso de transformación carcelaria: La prensa Crítica. [Evaluation of the prison transformation process: The Critical Press]. In M. A. Folle & A. Vigna (Eds.), *Cárceles en el Uruguay en el siglo XXI (Prisons in Uruguay in the 21st century)* (pp. 121–132). Montevideo: Biblioteca Plural Udelar.
- Franklin, T. W., Franklin, C. A., & Pratt, T. C. (2006). Examining the empirical relationship between prison crowding and inmate misconduct: A meta-analysis of conflicting research results. *Journal of Criminal Justice*, 34(4), 401–412. doi:10.1016/j.jcrimjus.2006.05.006
- Frijda, N. H., Kuipers, P., & Ter Schure, E. (1989). Relations among emotion, appraisal and emotional action readiness. *Journal of Personality and Social Psychology*, 57(2), 212–228. doi:10.1037/0022-3514.57.2.212
- Halperin, E., Sharvit, K., & Gross, J. J. (2011). Emotion and emotion regulation in intergroup conflict: An appraisal-Based framework. In D. Bar-Tal (Ed.), *Intergroup conflicts and their solution: Social Psychological Perspectives* (pp. 83–103). New York: Psychology Press.
- Hareli, S., & Rafaeli, A. (2008). Emotion cycles: On the social influences of emotion in organizations. *Research in Organizational Behavior*, 28, 35–59. doi:10.1016/j.riob.2008.04.007
- Harenstam, A., Palm, U., & Theorell, T. (1988). Stress, health and the working environment of Swedish prison staff. *Work and Stress*, 2(4), 281–290. doi:10.1080/02678378808257489
- Hatfield, E., Cacioppo, J. T., & Rapson, R. L. (1994). *Studies in emotion and social interaction. Emotional contagion*. Cambridge: Cambridge University Press.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513–524. doi:10.1037/0003-066X.44.3.513
- Hofman, S. G., Carpenter, J. K., & Curtiss, J. (2016). Interpersonal Emotion Regulation Questionnaire (IERQ): Scale development and psychometric characteristics. *Cognitive Therapy and Research*, 40(3), 341–356. doi:10.1007/s10608-016-9756-2
- Huddy, L., Feldman, S., & Cassese, E. (2007). On the distinct political effects of anxiety and anger. In A. Crigler, M. MacKuen, G. Marcus, & W. R. Neuman (Eds.), *The dynamics of emotion in political thinking and behavior* (pp. 202–230). Chicago, IL: Chicago University Press.
- Ilies, R., Johnson, M. D., Judge, T., & Keeney, J. (2011). A within-individual study of interpersonal conflict as a work stressor: Dispositional and situational moderators. *Journal of Organizational Behavior*, 32(1), 44–64. doi:10.1002/job.677
- 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. doi:10.1108/02683940510579803
- Juanche, A., & Palumo, J. (2012). *Hacia una política de Estado en privación de libertad. Dialogo, Recomendaciones y propuestas. (Towards a State policy on deprivation of liberty. Dialogue, Recommendations and Proposals)*. Uruguay: SERPAJ.
- Keltner, D., & Haidt, J. (2001). Social functions of emotions. In T. J. Mayne & G. A. Bonanno (Eds.), *Emotions: Current issues and future directions. Emotions and social behavior* (pp. 192–213). New York: Guilford Press.
- Kinman, G., Clements, A. J., & Hart, J. (2017). Working Conditions, Work-Life conflict, and well-being in U. K. prison officers. *Criminal Justice and Behavior*, 44(2), 226–239. doi:10.1177/0093854816664923
- Kuppens, P., Van Mechelen, I., & Meulders, M. (2004). Every cloud has a silver lining: Interpersonal and individual differences determinants of anger-related behaviors. *Personality and Social Psychology Bulletin*, 30(12), 1550–1564. doi:10.1177/0146167204271176
- Lahm, K. F. (2008). Inmate-on-inmate assault: A multilevel examination of prison violence. *Criminal Justice and Behavior*, 35(1), 120–137. doi:10.1177/0093854807308730
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Lerner, J. S., & Keltner, D. (2000). Beyond valence: Toward a model of emotion-specific influences on judgment and choice. *Cognition and Emotion*, 14(4), 473–493. doi:10.1080/026999300402763
- Little, L. M., Kluemper, D., Nelson, D. L., & Gooty, J. (2011). Development and validation of the Interpersonal Emotion Management Scale. *Journal of Occupational and Organizational Psychology*, 85, 1–14. doi:10.1111/j.2044-8325.2011.02042.x

- Lopes, P. N., Salovey, P., Coté, S., & Beers, M. (2005). Emotion regulation abilities and the quality of social interaction. *Emotion*, 5(1), 113–118. doi:10.1037/1528-3542.5.1.113
- Mackie, D. M., Devos, T., & Smith, E. R. (2000). Intergroup emotions: Explaining offensive actions in an intergroup context. *Journal of Personality and Social Psychology*, 79(4), 602–616. doi:10.1037/0022-3514.79.4.602
- MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, 7(1), 83–104. doi:10.1037/1082-989X.7.1.83
- Marshall, G. H. (2004). Posttraumatic stress disorders symptoms checklist: Factor structure and English-Spanish measurement invariance. *Journal of Traumatic Stress*, 17(3), 223–230. doi:10.1023/B:JOTS.0000029265.56982.86
- 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. *The Prison Journal*, 92(1), 88–105. doi:10.1177/0032885511429256
- Martínez-Íñigo, D., & Crego, A. (2017). Evaluación de una intervención para la mejora de las competencias de regulación interpersonal del afecto y el bienestar laboral en una muestra de operadores penitenciarios del Uruguay. *Universitas Psychologica*, 16(3), 1–15. doi:10.11144/Javeriana.upsy16-3.eim
- Martínez-Íñigo, D., Bermejo-Pablos, C., & Totterdell, P. (2018). The boomerang effect: How nurses' regulation of patients' affect associates with their own emotional exhaustion and affective experiences. *International Journal of Stress Management*, 25(1), 1–13. doi:10.1037/str000003d9
- Martínez-Íñigo, D., Mercado, F., & Totterdell, P. (2015). Using interpersonal affect regulation in simulated healthcare consultations: An experimental investigation of self-control resource depletion. *Frontiers in Psychology*, 6, Article 1485.
- Martínez-Íñigo, D., Poerio, G. L., & Totterdell, P. (2013). The association between controlled interpersonal affect regulation and resource depletion. *Applied Psychology: Health and Well-Being*, 5(2), 248–269. doi:10.1111/aphw.12009
- Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. J. Sluyter (Eds.), *Emotional development and emotional intelligence* (pp. 3–31). New York: Basic Books.
- Moon, B., & Maxwell, S. R. (2004). Assessing the correctional orientation of corrections officers in South Korea. *International Journal of Offender Therapy and Comparative Criminology*, 48(6), 729–743. doi:10.1177/0306624X04266681
- MTMPL Mesa de Trabajo sobre Mujeres Privadas de Libertad. (2006). *Mujeres privadas de libertad en el Uruguay, Informe sobre las condiciones reclusión*. Montevideo: MEC.
- Muzavazi, C. (2016). Violence at work in prison establishments: A preliminary study. *Journal of Criminological Research, Policy and Practice*, 2(4), 250–259. doi:10.1108/JCRPP-10-2015-0050
- Niven, K., Totterdell, P., & Holman, D. (2007). Changing moods and influencing people: The use and effects of emotional influences at HMP Grendon. *Prison Service Journal*, 173, 39–45. <https://eprints.whiterose.ac.uk/43125/>
- Niven, K., Totterdell, P., & Holman, D. (2009). A classification of controlled interpersonal affect regulation strategies. *Emotion*, 9(4), 498–509. doi:10.1037/a0015962
- Niven, K., Totterdell, P., Stride, C. B., & Holman, D. (2011). Emotion Regulation of Others and Self (EROS): The development and validation of a new individual difference measure. *Current Psychology*, 30(1), 53–73. doi:10.1007/s12144-011-9099-9
- Nylander, P., Lindberg, O., & Bruhn, A. (2011). Emotional labour and emotional strain among Swedish prison officers. *European Journal of Criminology*, 8(6), 469–483. doi:10.1177/1477370811413806
- Perrewé, P. L., & Zellars, K. L. (1999). An examination of attributions and emotions in the transactional approach to the organizational stress process. *Journal of Organizational Behavior*, 20(5), 739–752. doi:10.1002/(SICI)1099-1379(199909)20:5<739::AID-JOB1949>3.0.CO;2-C
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 85, 879–903. doi:10.1037/0021-9010.88.5.879
- Porporino, F. J. (1986). Managing violent individuals in correctional settings. *Journal of Interpersonal Violence*, 1(2), 213–237. doi:10.1177/088626086001002005
- Preacher, K. J., & Kelley, K. (2011). Effect size measures for mediation models: Quantitative strategies for communication indirect effects. *Psychological Methods*, 16(2), 93–115. doi:10.1037/a0022658
- Pruitt, D., & Kim, S. H. (2004). *Social conflict: Escalation, stalemate, and settlement*. New York: McGraw-Hill.
- Rafaeli, A., & Sutton, R. I. (1987). Expression of emotion as part of the work role. *Academy of Management Review*, 12(1), 23–37. doi:10.5465/amr.1987.4306444
- Rafaeli, A., & Sutton, R. I. (1989). The expression of emotion in organizational life. *Research in Organizational Behavior*, 11, 1–42.
- Roseman, I. J. (2002). Dislike, anger, and contempt: Interpersonal distancing, attack, and exclusion emotions. *Emotion Researcher*, 16, 5–6.
- Serin, R. C. (1991). Psychopathy and violence in criminals. *Journal of Interpersonal Violence*, 6(4), 423–431. doi:10.1177/088626091006004002
- Sorensen, J. R., Cunningham, M. D., Vigen, M. P., & Woods, S. O. (2011). Serious assaults on prison staff: A descriptive analysis. *Journal of Criminal Justice*, 39, 143–150. doi:10.1016/j.jcrimjus.2011.01.002
- Sparks, R., Bottoms, A. E., & Hay, W. (1996). *Prisons and the Problem of Order*. Oxford: Clarendon.
- Stefanile, C., Matera, C., Nerini, A., Puddu, L., & Raffagnino, R. (2017). Psychological Predictors of Aggressive behaviour among men and women. *Journal of Interpersonal Violence*, 36, 1–2. doi:10.1177/0886260517737553
- Strengthening democratic governance at national and local levels. (2014). *Support for the consolidation of prison system reform and protection of persons deprived of their liberty, with emphasis on adolescents, women and their children*. <http://www.undp.org/content/dam/uruguay/docs/Prodocs/URU%2013%20005%20Reforma%20cárceles.pdf>
- Tartaro, C., & Levy, M. (2007). Density, inmate assaults, and direct supervision jails. *Criminal Justice Policy Review*, 18(4), 395–417. doi:10.1177/0887403407299863
- Trammell, R., Vandenberg, A., & Ludden, T. (2012). *Mutual respect, conflict and conflict resolution in prison:*

- A Response to the commission on safety and abuse in America's prison report.* https://corrections.nebraska.gov/sites/default/files/files/46/trammell_2012_1.pdf
- Vigna, A. (2016). Reforma penitenciario en el Uruguay: Una Mirada al proceso de despoliciamiento del sistema carcelario a doce años de la era progresista [Prison reform in Uruguay: A look at the process of des-policemanization of the prison system twelve years into the progressive era]. *Revista Electrónica Da Faculdade De Direito Da Universidade Federal De Pelotas*, 2, 89–109. doi:10.15210/rfdp.v2i2.11444
- Watson, D., Wiese, D., Vaidya, J., & Tellegen, A. (1999). The two general activation systems of affect: Structural findings, evolutionary considerations, and psychophysiological evidence. *Journal of Personality and Social Psychology*, 76(5), 820–838. doi:10.1037/0022-3514.76.5.820
- Wolff, N., Shi, J., & Bachmand, R. (2008). Measuring victimization inside Prisons: Questioning the Question. *Journal of Interpersonal Violence*, 23(10), 1343–1362. doi:10.1177/0886260508314301
- Zaki, J., & Williams, J. C. (2013). Interpersonal emotion regulation. *Emotion*, 13(5), 803–810. doi:10.1037/a0033839