

Isenhardt, A., Hostettler, U., & Ramseier, E. (2019). Effects of Social Relations at Work and Support From Family and Friends on the Consequences of Inmate Violence on Correctional Staff Burnout. *Criminal Justice and Behavior*.  
<https://doi.org/10.1177/0093854819846529>

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Effects of Social Relations at Work and Support from Family and Friends on the Consequences  
of Inmate Violence on Correctional Staff Burnout

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## Authors' note

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This study was funded by the Swiss National Science Foundation (Grants No. 130375 and 143207; <http://p3.snf.ch/project-130375> and <http://p3.snf.ch/project-143207>) and by additional small grants from the University of Fribourg, Switzerland, and from the Swiss Center of Expertise in Prison and Probation. Correspondence concerning this article should be addressed to Anna Isenhardt, Institute for Penal Law and Criminology, University of Bern, Schanzeneckstrasse 1, PO Box, CH-3001 Bern, Switzerland; e-mail: [anna.isenhardt@krim.unibe.ch](mailto:anna.isenhardt@krim.unibe.ch).

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Abstract

This paper explores (a) the influence of positive relationships with direct supervisors and co-workers, and feelings of support from family and friends, on burnout and the sense of security and (b) their hypothetical buffering influence on the harmful effects of being a victim of inmate violence or observing violence between inmates in a sample of Swiss correctional staff ( $N = 2045$ ). Moderated mediation path models indicated that all forms of social relationships increased the sense of security and decreased burnout. A positive relationship with direct supervisors had no significant moderating effect. A high degree of cohesion with colleagues ameliorated the adverse effects of observing violence between inmates on the sense of security and, mediated by the sense of security, on burnout. This buffering effect was only significant for male employees. Support from family and friends did not act as a buffer; on the contrary, it amplified the effects of violence.

Keywords: inmate violence, burnout, sense of security, social support, coping, prison staff, Switzerland

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Workplace victimization can be a very stressful experience and often leads to negative consequences for the employee concerned, his or her colleagues, and the entire organization. These adverse effects also occur within the correctional context (e.g., Finn, 1998; Lai, Wang, & Kellar, 2012; Steiner & Wooldredge, 2015). In previous research, we detected the negative influence of inmate violence on both the sense of security and burnout of the correctional staff in the Swiss penal system (Isenhardt & Hostettler, 2016). Feelings of insecurity were found to mediate the relationship between victimization and burnout. Building on this previous research, this study aims to develop our initial model and explores the direct and potential buffering effects of positive social relationships at work and home.

Knowledge of factors that can reduce the negative consequences of violence is especially salient in the correctional context. Inmates suffer from the so-called “pains of imprisonment” (Sykes, 1958), and correctional facilities house many inmates with histories of violent behavior. These histories contribute to frequent occurrences of explosive tension that foster violence within correctional facilities (e.g., Arbach-Lucioni, Martinez-García, & Andrés-Pueyo, 2012; Jiang & Fisher-Giorlando, 2002). Although, in general, inmates are at a higher risk of suffering from violence, we focus here on the specific situation of victimized staff.

Several studies have examined the beneficial effects of healthy social relationships and social support from different relationships (colleagues, supervisors, management, family, and friends) on the well-being, burnout, job satisfaction, and job stress reduction of correctional staff (Brough & Williams, 2007; Isenhardt, Hostettler, & Young, 2014; Lambert, Altheimer, & Hogan, 2010; Schaufeli & Peeters, 2000; Steiner & Wooldredge, 2015; Triplett & Mullings, 1996; Whitehead & Lindquist, 1986). There is, however, limited research available on the role of social relationships following victimization. This study provides new insights into the effects of

positive relationships with direct supervisors and co-workers as well as general feelings of support from family and friends when becoming a victim of inmate violence or observing violent acts between inmates. In addition, because women and men have been found to differ in their coping strategies (Helgeson, 2011; Schwartz & Stone, 1993) and in their relationships with co-workers and supervisors (Britton, 2003; Crawley, 2004), the role of staff gender is also evaluated.

### **Correctional Staff Burnout**

Staff burnout is a consequence of constant work stress and exposure to stressful events in the workplace. It is generally described as a three-dimensional construct comprised of (a) emotional exhaustion, (b) de-personalization, and (c) a reduced sense of personal accomplishment (Maslach & Jackson, 1981). Burnout can occur in each of these three dimensions separately, although emotional exhaustion is often viewed as the predominant dimension (Maslach, 2003).

Recent research has found that a reduced sense of personal accomplishment can be viewed as a consequence of exhaustion and depersonalization rather than as a separate dimension of burnout. Thus, following Demerouti, Bakker, Vardakou, and Kantas (2003), in the present study, we consider burnout as a two-dimensional concept involving exhaustion and disengagement. In Demerouti et al.'s (2003) definition, exhaustion includes physical and cognitive aspects in addition to affective aspects. Disengagement, when compared to depersonalization, is less narrowly defined. It involves negative attitudes towards work tasks and work objects and does not focus exclusively on clients, as is the case with depersonalization (Demerouti et al., 2003). Due to the care-orientated work tasks of correctional staff and their close contact with inmates, this may put them at risk. Several researchers have studied the factors influencing the development of burnout within this specific occupation. Schaufeli and Peeters' (2000) literature review identified role problems, work overload, demanding social contacts

(with supervisors, colleagues, and inmates), and poor social status as significant factors associated with burnout and job stress. In a more recent literature review, Finney, Stergiopoulos, Hensel, Bonato, and Dewa (2013) confirmed these results, finding that the organizational structure (e.g., participation, fair treatment, organizational support), the social climate within the correctional institution, and the relationship with supervisors were also of particular importance. A third literature review carried out by Lambert, Hogan, Griffin, and Kelley (2015) revealed that, in general, work environment variables explained a greater degree of variance in job burnout than socio-demographic characteristics. Moreover, the studies under review identified several factors which increased burnout, including role overload, role ambiguity, role conflict, the perceived dangerousness of the job, work pressure, work stress, negative inmate contacts, and a lack of participation in decision-making. Among other factors, satisfaction with supervision, job autonomy, task significance, job feedback, and management, supervisor, co-worker, community and societal support were found to decrease burnout.

### **Social Relationships, the Stressor–Strain Relationship, and Staff Victimization**

In general, positive social relationships and strong social support are essential resources in reducing the negative consequences of stressful events within the work context (Bakker, Demerouti, & Euwema, 2005) and after exceptional situations such as violent victimization (Janoff-Bulman & Hanson Frieze, 1983). At work, stress and other physiological and psychological effects such as burnout are caused by so-called job demands (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). In corrections, inmate violence (Finn, 1998; Lai et al., 2012; Steiner & Wooldredge, 2015), the fear of victimization, and the perceived dangerousness of the job (Blevins, Cullen, Frank, Sundt, & Holmes, 2006; Crawley, 2004; Dowden & Tellier, 2004; Lombardo, 1981; Schaufeli & Peeters, 2000) have been identified as job demands. However, employees also have different so-called job resources which reduce physiological and psychological effects and help them to cope with work demands. Burnout occurs when demands



are high and resources are low or limited (Demerouti et al., 2001). Positive social relationships and support have been found to have direct, mediating, and buffering effects (Dewe, O'Driscoll, & Cooper, 2010; Viswesvaran, Sanchez, & Fisher, 1999).

Within the work context, employees typically have social relationships with two groups: co-workers and supervisors. In addition to other factors, solidarity is a common characteristic of strongly cohesive collectives. Team members take responsibility for each other and, if necessary, defend each other (Frese, 1989). These relationships are especially important in the correctional context. For instance, Crawley (2004), who carried out an extensive qualitative study on prison staff and their work environments, wrote that solidarity among co-workers is one of the most significant cultural norm that prison officers must observe. It ensures that officers can rely on their colleagues in the event of risk of harm from inmates. In addition, highly cohesive groups were found to have better group performance (Beal, Cohen, Burke, & McLendon, 2003). Therefore, they can be expected to be more effective at managing unexpected risky and challenging situations. Support from colleagues reduces correctional staff burnout (Lambert et al., 2010), work stress (Armstrong & Griffin, 2004; Steiner & Wooldredge, 2015), role stress, and turnover intention (Lambert, Hogan, Keena, Williamson, & Kim, 2017). However, Kunst, Schweizer, Bogaerts, and van der Knaap (2008) ascertained that, for victimized Dutch correctional staff, talking about victimization with colleagues did not moderate the relationship between victimization and post-traumatic stress disorder (PTSD) symptoms. PTSD and burnout are, however, distinct concepts: while PTSD is the consequence of an extraordinary and particularly threatening event (World Health Organization, 2016), burnout is the result of long-lasting stress.

Rasmussen, Hogh, and Anderson (2013), in their survey of social service staff, amongst them prison and probation service employees, found that roughly one third of the latter agreed that one has to accept the risk of victimization when working with offenders. Therefore,

victimization by clients does not seem to be an extraordinary event, although it may still function as a job demand which, in turn, causes long-lasting stress. In addition to positive relationships with co-workers, positive relationships with supervisors have also been found to reduce stress and burnout (Brough & Williams, 2007; Lambert et al., 2010; Lambert et al., 2015; Steiner & Wooldredge, 2015). Supervisor appreciation and support can put job demands into another perspective (Bakker et al., 2005). It also plays an essential role after workplace victimization. Zietlow (2014) found that, in case of victimization of police officers, supervisors played an essential role in victims' coping due to both their direct reaction to the victimization and the working atmosphere they created. In addition, the police officers mentioned that they employed other important coping strategies, such as seeking support from family and friends when dealing with victimization by the public. These coping strategies also indicate that support from outside the professional context, for instance, from family and friends, can be helpful when dealing with work-related demands. However, outside of the specific context of victimization, Lambert et al. (2010) detected no significant effect of support by family and friends on correctional staff burnout. The same was true of the impact of social support from family and friends on the role stress, work-family conflict, and turnover intention of private correctional staff (Lambert et al., 2017). However, it remains unknown whether social support from family and friends can help reduce the negative consequences of correctional staff victimization by inmates.

### **Gender Differences**

What is perceived as demanding and stressful, and how one responds to specific events, depends on personal characteristics and preferences. In a literature review, Helgeson (2011) found that men and women tend to diverge in their exposure to particular stressors, stressor appraisal, and coping styles. Women more often rely on social support to cope with stressful events. Schwartz and Stone (1993) confirmed these results for the work context. To

cope with work stress, women more often employed distraction strategies, social support, and relaxation techniques.

In addition, working in corrections, particularly in male correctional institutions, has been observed to be different for men and women. This difference is made explicit in the relationships between co-workers and supervisors. Researchers have described corrections as a work environment shaped by a culture of masculinity, where physical strength is seen as a prerequisite for the work (Britton, 2003; Crawley, 2004). Within this work environment, male colleagues tend to perceive women as physically weaker and therefore unable to deal with inmates as well as male correctional workers do. Consequently, male officers often do not fully accept their female co-workers (Britton, 2003; Crawley, 2004). Tait (2008:75) reported that female officers in male prisons were “left alone to deal with escalating incidents while being watched from afar by several male officers.” The culture of masculinity is also considered to engender difficulties in talking about feelings, such as fear or anxiety (Crawley, 2004), and it is probably especially men who experience peer pressure to conform to the masculine culture. Therefore, the ways in which staff members deal with negative feelings related to victimization and whether, and to whom, they talk about it likely also differ between men and women.

### **Current Study**

The present study is part of a larger research project and builds on a previous publication dealing with the consequences of inmate violence on prison staff burnout (Isenhardt & Hostettler, 2016). The current study goes one step further by focusing on the moderating effect of social relationships on the association between victimization, a sense of security, and burnout. We explore whether or not social relationships have a protective effect that helps to reduce correctional staff burnout in general, and in particular following victimization. Three different

types of social relationships are included: relationships with direct supervisors, cohesion with colleagues, and support from family and friends.

While stress reactions have been found to be linked to severe forms of victimization (physical violence), other forms of victimization, such as psychological violence, can also contribute to such reactions (Losavio et al., 2011; Perloff, 1983). Therefore, we consider both psychological and physical forms of violence. Further, observing incidents of violence (both psychological and physical) between inmates are also considered, because indirect victimization can have similarly adverse effects on feelings of safety.

Based on these considerations, we formulated four hypotheses:

Hypothesis 1: Positive social relationships with direct supervisors, colleagues, and family and friends are essential resources that have a direct impact, decreasing burnout and increasing the sense of security.

Hypothesis 2: All three types of social relationships have a buffering effect following victimization and reduce (a) the adverse effects of inmate-on-staff victimization and staff observation of inmate-on-inmate violence on the sense of security and (b) the positive direct effects of both forms of violence on burnout.

Hypothesis 3: Consequently, the indirect effects of both forms of violence on burnout, which are mediated by the sense of security (Isenhardt & Hostettler, 2016), are also moderated by all three types of social relationships, and the positive effects of both forms of violence on burnout, mediated by the sense of security, are reduced.

Helgeson (2011) and Schwartz and Stone (1993) suggested that staff gender correlates with different coping styles. Furthermore, other researchers have demonstrated that men and women have divergent experiences of working in corrections, complicating relationships between male and female members of staff (Britton, 2003; Crawley, 2004; Tait, 2008).

Consequently, we proposed a fourth hypothesis:

Hypothesis 4: The effects of experienced and observed violence on the sense of security and burnout, and the total and moderating effects of positive social relationships, are different for male employees than for female employees.

Furthermore, we control for variables that have been found to affect coping styles or lead to differences in work tasks or exposure to violence, in particular gender, age, tenure, work roles, inmates gender and the conviction status of inmates (e.g., sentenced vs. pretrial detention; Aldwin, 2011; Britton, 2003; Crawley, 2004; Helgeson, 2011; Isenhardt & Hostettler, 2016; Schwartz & Stone, 1993; Tait, 2008).

### Method

The research project of which this study forms a part dealt with various questions concerning prison staff well-being and work performance (see Isenhardt & Hostettler, 2016). A cross-sectional study was conducted in a variety of Swiss correctional facilities. To reach employees from all parts of the country, a questionnaire was provided in German, French, and Italian. The research was endorsed by the Conference of Cantonal Justice and Police Directors (KKJPD), the Swiss Prison Staff Training Center (SAZ), and the Association of Swiss Prison Governors (FES).

Of the 112 facilities Switzerland had at the time of the study, 89 participated and were included in the sample. Most facilities were jails focusing on pretrial detention, short sentences with a maximum length of one year, and administrative detention of foreign nationals being held for deportation. The second-largest group included prisons and centers for the execution of measures, which are specialized institutions with offender therapy as their central aim. These house inmates whose offences were seen to have a significant connection to mental illness during their trial and who were sentenced to undergo therapy (a so-called measure) rather than receiving a prison sentence. The institutional sample included two forensic psychiatric hospitals, one prison hospital, eight facilities for juvenile offenders, and five specialized homes for the release

preparation of inmates approaching the completion of their sentences (for more information on the Swiss prison system, see Baechtold, Weber, & Hostettler, 2016).

A questionnaire and a cover letter containing information about the purpose of the study were distributed to all 4,217 employees within these 89 facilities. Survey distribution was organized through the participating facilities. Surveys were handed out by the prison administration or direct supervisors, or were placed into the individual mailboxes of employees. Completed questionnaires were returned to the research team utilizing an enclosed pre-stamped and addressed envelope. Due to unit non-response in three relatively small facilities, the number of facilities in the sample was reduced from 89 to 86 (for more information, see Isenhardt & Hostettler, 2016).

### **Sample**

The employee response rate was 48.5%, giving a sample of 2,045 persons assigned to different work areas of the correctional facilities (except for prison wardens, who were not included in the survey). With regard to work roles, 41% of respondents worked as correctional officers while 18.8% worked as industry staff, taking care of inmates in the different areas of prison labor; 9.4% worked as security staff and 9.2% were employed in administrative roles. A further 7.4% worked as treatment staff (including psychologists, psychiatrists, and social services); 3.5% as medical staff; 3% as educational staff; and 7.7% in other areas, such as technical service or food service. The majority (97.2 %) had had contact with inmates at least twice in the 6 months before the study. Only 57 employees (2.8%) did not work directly with inmates. A large percentage of respondents (74.5%) worked with inmates daily. Most of the participants were male (72.2%) and between the ages of 31 and 60 (22.2% 31–40 years, 34.5% 41–50 years, and 28.7% 51–60 years). Of all respondents, 75.3% spoke German, 22.0% spoke French, and 2.7% spoke Italian as their first language.

The majority of staff members reported various types of vocational training as their highest level of education (53.1%). Approximately one out of every six (17.5%) had a university degree, and 11.8% had completed a higher degree in vocational education. Most respondents had worked in corrections for 1–5 years (28.5%). Approximately one fifth (20.3%) has done so for 6–10 years, a quarter (25.2%) for 10–20 years, and 14.5% for more than 20 years. More than half were employed in facilities for the execution of sentences and facilities for the execution of so-called measures (62.0%), while 28.8% worked in prisons where pre-trial detention, administrative detention, and short sentences were carried out.

### Measures

The dependent variable of prison staff burnout was measured using the Oldenburg Burnout Inventory. The inventory measures the two core dimensions of burnout: Exhaustion and Disengagement, with eight items each. It considers not only stressful contacts with clients but also examines feelings of exhaustion and disengagement in general, without referring specifically to inmates. Thus, it also covers other aspects of correctional officers' work (Demerouti et al., 2003). Exhaustion is defined as a consequence of intense psychological and physical strain and can therefore be understood as a long-term consequence of exposure to specific job demands. Sample items are, "After work, I tend to need more time than in the past in order to relax and feel better," or "I can tolerate the pressure of my work very well" (reverse). The Disengagement subscale measures the degree to which one distances oneself from one's work in general, work object, or work content, using statements such as, "Lately, I tend to think less at work and do my job almost mechanically," or "I always find new and interesting aspects in my work" (reverse). A disengaged employee no longer sees his or her work as challenging, instead perceiving it as routine or even boring. All items are rated on a 4-point Likert-type scale ranging from 1 (strongly disagree) to 4 (strongly agree). The burnout sub-dimensions (Exhaustion and Disengagement) were analyzed in separate models because, theoretically, they

can be seen as separate dimensions of the same construct and it is possible for burnout to occur in only one of the two dimensions (Maslach, 2003).

Confirmatory factor analysis with the current sample revealed several difficulties with both burnout subscales (Isenhardt & Hostettler, 2016). Due to cross-loadings between the dimensions and factor loadings below .40, the number of items for each subscale was reduced from eight to six. Cronbach's  $\alpha$  for the adjusted Exhaustion scale was .84 and for the Disengagement scale .78. The reduced scales remain valid (for further information, see Isenhardt & Hostettler, 2016).

### **Independent Variables**

**Experienced violence.** To measure the violence experienced by staff members as a result of victimization by inmates, a scale with five distinct forms of inmate aggression against staff was constructed: (1) "inmates have insulted me", (2) "inmates have intimidated me verbally", (3) "inmates have grabbed or held me", (4) "inmates have assaulted me without a weapon", and (5) "inmates have assaulted me with a weapon". Participants were asked to report how often they had been victims of these types of aggressive inmate behaviors during the 6 months prior to the survey. The response scale allowed respondents to distinguish between five different frequencies of occurrence, ranging from 0 (never) to 5 (every day). For a full explanation, see Isenhardt et al. (2014).

The range of victimization varies in severity. To take this at least rudimentarily into account, we constructed a weighted mean score by weighting each form of inmate violence against staff according to its list position. The item "inmates have insulted me" was given a weight of 1, the item "inmates have intimidated me verbally" a weight of 2, the item "inmates have grabbed or held me" a weight of 3, the "item inmates have assaulted me without a weapon" a weight of 4, and the item "inmates have assaulted me with a weapon" a weight of 5 (see Isenhardt & Hostettler, 2016).



**Observed violence.** Observed violence refers to the observation of violence between inmates, which was measured similarly to experienced violence. The list of aggressive behaviors between inmates comprised: (1) “verbal aggression”, (2) “assaults without injury of one or more inmates”, (3) “assaults with injury of one or more inmates”, (4) “sexual assault”, and (5) “assault with use of weapons”. As with experienced violence, respondents were asked to report on a five-point scale, ranging from 0 (never) to 5 (every day), how often they had observed one or more forms of aggression between inmates during the 6 months prior to the survey (for a full explanation, see Isenhardt et al., 2014). As with experienced violence, a weighted mean score was constructed according to the list position of each form of violence between inmates (see Isenhardt & Hostettler, 2016).

### **Mediating Variable**

**The sense of security.** The “sense of security” refers to personal feelings of security or insecurity while working, as well as the overall security and atmosphere within the facilities. To measure these personal assumptions, we combined three statements into a single index: “I feel safe while working,” “In general, the atmosphere in this facility is relaxed,” and “The security in this facility is good.” The items were rated on a 5-point Likert-type scale ranging from 1 (not true) to 5 (very true). The Cronbach’s  $\alpha$  of the scale was .68.

### **Moderating Variables**

**Relationship with direct supervisors.** A positive relationship with direct supervisors is characterized by positive, fair, respectful, and appreciative treatment from such supervisors. Good communication and high professional competency are essential to such relationships. These aspects were measured using a nine-item scale with a Cronbach’s  $\alpha$  of .91. Sample items are: “I receive recognition for rendered work” and “Some supervisors always favor certain colleagues” (reverse).

**Cohesion with colleagues.** Cohesion among colleagues was measured using a scale developed by Frese (1989) which refers explicitly to cohesion in the work context. The scale contains eight items, including, “We stand together” and “If necessary, we defend every colleague”. Based on factor analysis, one item was removed. The resulting seven-item scale had a Cronbach’s  $\alpha$  of .84.

**Social support from family and friends.** To measure social support from family and friends, we adopted a four-item scale from Lehmann and Greve (2006). Sample items for this scale are, “When my work is stressful, I know that I can count on my family and friends” and “There is no one in my personal environment to whom I could talk about my work” (reverse). The Cronbach’s  $\alpha$  for this scale was .72. For all social relationship measures, a 5-point Likert-type scale was provided ranging from 1 (not true) to 5 (very true).

### **Employee Gender and Covariates**

Employee gender was used in the multiple group analysis or as a covariate. Females were coded as 1 and males were coded as 0. Other covariates were dummy coded and comprised employees’ ages (under the age of 30, between 31 and 50; reference category: over 50), tenure (less than 1 year, between 1 and 5 years, between 5 and 15 years; reference category: more than 15 years), position (correctional officer, security service, prison industry, administration, other; reference category: special services), inmate gender (female, female and male; reference category: male), inmate age (under the age of 25; reference category: over 25), and inmate status (sentenced vs. pretrial detention; reference category: sentenced and pre-trial detention).

### **Analysis**

We analyzed the data using moderated mediation path models, which allowed us to take into account the moderation of the direct and indirect effects of experienced and observed violence, mediated by the sense of security, on burnout (see Preacher, Rucker, & Hayes, 2007, p. 194, Model 2). We tested whether the relationship with direct supervisors, cohesion among

colleagues, and support from family and friends moderated the effects of experienced and observed violence on the sense of security. Further, we analyzed whether the effects of experienced and observed violence on exhaustion and disengagement and the indirect effects of both forms of violence mediated by the sense of security on exhaustion and disengagement were moderated (see Figures 1 and 2). We also evaluated whether the effects of sense of security on exhaustion and disengagement were moderated but found no significant results.

Before building the path models, we viewed and tested the correlations between all studied variables for the significance of differences between female and male employees using the Fisher  $z$ -transformation (Bortz & Schuster, 2010, p. 160). In a next step, we estimated the path model and built and included the interaction terms between the social support variables and experienced as well as observed violence. All models were saturated, leading to perfect model fits. Prior to building the interaction terms, we  $z$ -standardized all continuous study variables. Confidence bands for significant interaction terms were plotted to further study the moderation effects and to determine for which values of the moderating variables the relationships between the independent, dependent, and mediating variables were being moderated. Finally, we applied multiple group analysis to assess gender differences using employee gender as a grouping variable. To investigate the significance of gender differences, we tested every parameter estimate using the Wald chi-square test with 1 degree of freedom each.

The analyses were conducted using Mplus 7.2 (Muthén & Muthén, 2015). To avoid problems with multivariate non-normality, we used the robust maximum likelihood estimator. Computations with bootstrapped standard errors and asymmetric confidence intervals revealed similar results. Because survey participants were clustered in institutions, the observations could not be expected to be independent of each other. This clustering was also indicated by intra-class correlation values in the range of .03–.14, which can be considered as rather high (Hox, 2010, p.

244). As a consequence, the standard errors and significance tests were controlled for the clustering effect (Muthén & Muthén, 2015).

## Results

### Descriptive Statistics and Correlations

The descriptive statistics are illustrated in Table 1. The sample means for both Exhaustion (2.24) and Disengagement (1.90) were below the neutral mean of 2.50 on the 4-point answering scale. In comparison to exhaustion, the overall level of disengagement was even lower. The sense of security was moderately high, with a sample mean of 3.96, referring to the 5-point answering scale. Experienced and observed violence was moderately low, with means of .04 and .07, respectively. Frequency analyses demonstrated that both forms of violence were mainly psychological. Insults, intimidation, and verbal disputes were dominant (Isenhardt & Hostettler, 2016; Isenhardt et al., 2014). The means for the relationship with direct supervisors (3.59), cohesion among colleagues (3.45), and social support from family and friends (4.12) were all above the neutral category of the 5-point answering scale, establishing that participants rated all three forms of social relationships as moderate to high.

Most studied variables significantly correlated with each other. The correlations between both burnout subscales and the sense of security, relationship with direct supervisors, cohesion among colleagues, and support from family and friends were all negative. Therefore, high scores in these variables were linked to low levels of exhaustion and disengagement. In contrast, experienced and observed violence was positively correlated with exhaustion and disengagement. The sense of security had significant positive correlations with the social relationship variables. Thus, the sense of security was higher when the relationship with direct supervisors and cohesion among colleagues were perceived to be positive. A high level of social support from family and friends was also connected to a greater sense of security. The relationship with direct supervisors was correlated with experienced violence, but not with

observed violence. However, the correlation between the relationship with direct supervisors and experienced violence was only significant at a significance level of .05. Cohesion among colleagues did not significantly correlate with either form of violence. Support from family and friends was negatively correlated with both experienced and observed violence.

Some correlations differed between male and female staff. The correlation between disengagement and support from family and friends and that between experienced and observed violence were significantly higher for male staff. Additionally, the correlations between exhaustion and disengagement, the sense of security and disengagement, observed violence and disengagement, support from family and friends and sense of security, as well as between support from family and friends and the relationship with direct supervisors, were significantly different for male and female employees.

### **Direct Effects of Social Relationships on Prison Staff Burnout and Sense of Security**

Overall, the  $R^2$  values revealed that the independent and moderating variables along with the covariates explained 16% of the variance in the sense of security, and that the independent and moderating variables plus a sense of security and the covariates explained 24% of the variance in exhaustion and 29% of the variance in disengagement. However, this global measure of model quality is less important because the focus of this study is on the moderating effects of social relationships on the effects of inmate violence on the sense of security and burnout.

All three types of social relationships had a negative effect on both exhaustion and disengagement, meaning that a good relationship with direct supervisors, a high degree of cohesion among colleagues, and support from family and friends all reduced burnout (hypothesis 1, Figures 1 and 2). All social relationships also increased the sense of security (hypothesis 1). Furthermore, all three types of social relationships had significant indirect negative effects, mediated by the sense of security, on disengagement and exhaustion.

### **Buffering Effects of Social Relationships**

Relationship with direct supervisors had no significant moderating effect. In contrast, the effect of the interaction term between observed violence and cohesion among colleagues on the sense of security was significant (hypothesis 2, Figures 1 and 2). Thus, cohesion among colleagues significantly moderated the adverse effect of observed violence on the sense of security. To further clarify the moderation, Figure 3a illustrates the corresponding confidence band. The confidence band runs mostly below the x-axis, which means that, for levels of cohesion among colleagues between  $-2$  and  $+1.9$  standard deviations, observed violence had a significant negative effect on the sense of security (Preacher, Curran, & Bauer, 2006; Preacher et al., 2007). However, the size of the negative effect of observed violence on the sense of security steadily decreased with increasing levels of cohesion among colleagues, indicating a buffering effect of cohesion among colleagues.

As a consequence of this moderation, the indirect effects from the interaction term of observed violence and cohesion among colleagues, mediated by the sense of security, on exhaustion was also significant (hypothesis 3; see Table 2). The confidence band for this moderated indirect effect is illustrated in Figure 3c. With increasing levels of cohesion among colleagues, the positive effect from observed violence mediated by the sense of security on exhaustion decreased but remained significant for levels of cohesion among colleagues in a range between  $-2$  and  $+1.9$  standard deviations.

Experienced violence increased disengagement and exhaustion. Moreover, the significance of the interaction term between support from family and friends and experienced violence indicated that support from family and friends moderates the effect from experienced violence on disengagement (hypothesis 2; see Figure 2). The related confidence band, however, revealed that support from family and friends has no buffering effect (see Figure 3b). At variance with hypothesis 2, the positive effect of experienced violence on disengagement increased with

increasing levels of support from family and friends, appearing to be significant for support values between -0.1 and +2 standard deviations.

### **Effects of Social Relationships—Differences between Male and Female Workers**

Both male and female workers experienced violence by an inmate or observed violence between inmates during the observation period of 6 months before the start of the study. In the sample, male employees were involved in violent incidents slightly more often (experienced violence  $M = .04$ ,  $SD = 0.18$ ; observed violence  $M = .07$ ,  $SD = 0.27$ ) than female employees (experienced violence  $M = .03$ ,  $SD = 0.16$ ; observed violence  $M = .06$ ,  $SD = 0.23$ ). As regards the consequences of inmate violence on burnout, the results revealed that the direct paths from experienced violence to exhaustion and from observed violence to disengagement were significantly different between the genders (see Figures 4 and 5). These direct paths were only observed to be significant for female employees. When female employees experienced violence from inmates, their exhaustion increased, and when female employees observed violence between inmates, their disengagement decreased. For male employees, both effects were insignificant. The direct effects of the relationship with direct supervisors on the sense of security were also significantly different between the genders, being greater for males than females (see Figures 4 and 5).

Cohesion among colleagues only significantly moderated the effect of observed violence on male workers' sense of security. This connection is also reflected in the moderation of the indirect effects (see Table 3). The indirect effects of observed violence, mediated by the sense of security on exhaustion and disengagement, were only significantly moderated for male staff. No other effects detected in the main models indicated significant differences between the genders.

### **Discussion**

The purpose of the current study was threefold. First, we examined whether positive social relationships in the workplace, namely with direct supervisors and colleagues, and

supportive relationships with family and friends, affected the burnout and sense of security of correctional staff in Swiss correctional institutions. Second, we tested the hypothetical moderating effects of these three forms of social relationships in connection with (a) inmate-on-staff victimization (experienced violence) and (b) inmate-on-inmate violence observed by correctional staff (observed violence). Third, we tested for gender differences in the interrelations mentioned above.

Sample means of the social relationship variables revealed that Swiss correctional staff mostly rated their relationships with direct supervisors, the cohesion among colleagues, and their support from family and friends as moderate to high. The results confirmed the first hypothesis. All three types of relationships were vital resources which reduced burnout (measured as exhaustion and disengagement) and increased the sense of security. If the relationship with direct supervisors was positive and the cohesion among colleagues and support from family and friends were high, the sense of security increased, and exhaustion and disengagement decreased. Therefore, the results from Swiss correctional staff confirm results from research in different prison systems, which found positive social relationships to decrease burnout and job stress (e.g., Lambert et al., 2010; Steiner & Wooldredge, 2015).

Contrary to our expectations, as formulated in hypotheses 2 and 3, not all types of social relationships played a moderating role. The relationship with direct supervisors had no moderating effect. This finding is also surprising because a good relationship with direct supervisors was revealed to be highly important to staff's sense of security and burnout. Cohesion among colleagues moderated, as hypothesized, the relationship between observed violence and the sense of security. Related to this moderation, the indirect effects of observed violence on exhaustion and disengagement were moderated by cohesion among colleagues.

In contrast to the hypothesized buffering effect of support from family and friends, we found an amplifying effect; talking to family members and friends seems to intensify staff's



disengagement after experiencing violence. This could be explained by the assumption that people outside of the prison system rate incidents of inmate-on-staff violence as much more serious than the correctional staff themselves. Staff members, however, may see violence in prison not only as a threat and a form of individual inmate misconduct but as a reaction to the pains of imprisonment (Sykes, 1958), while family members and friends may see mainly the negative aspects of the violence. As a consequence, correctional staff may rate an incident as more severe than they would have if they had not talked to people without knowledge about the prison system and the nature of prison violence. In addition, social support can also have negative consequences. For example, when victims feel that they are held responsible for their fates, talking to other people can increase feelings of insecurity after victimization (Janoff-Bulman, 1985).

Support can have further unintended negative consequences. These consequences are particularly relevant when, for instance, a helper tells a victim that he or she could not have done anything to avoid victimization. This can lead victims to feel helplessly exposed to potential future victimization, which can increase fear (Janoff-Bulman, Madden, & Timko, 1983). However, disengagement is reduced when support from family and friends is high, even if such support has an amplifying effect in the event of victimization.

Furthermore, multiple group analysis revealed that different kinds of social relationships have other impacts depending on employee gender. In general, our sample indicated that male employees were involved in events of inmate-on-staff and inmate-on-inmate violence slightly more often. Direct effects from both forms of violence on exhaustion and disengagement, however, were only found for female staff members. Experiencing violence led to an increase in exhaustion for females, whereas it did not affect males. In addition, observing violence reduced disengagement for women. One reason why observing violence might reduce disengagement could be the assumption that violence between inmates is an expression of inmates'

psychological problems or a response to the deprivations of imprisonment. However, while there are differences between male and female employees, the underlying reasons remain unclear.

The effects of relationships with direct supervisors also differed significantly between the genders; the impact on the sense of security was higher for male than female employees. No gender differences were observed in terms of the positive impact had by direct supervisors on burnout. Furthermore, for both genders, no moderating effects of the relationship with direct supervisors were established. Cohesion among colleagues increased the sense of security and decreased burnout for both genders, but the moderation of the effect of observed violence on the sense of security by cohesion among colleagues was only significant for male staff members.

The results of the study again emphasize that positive social relationships in the workplace are a vital job resource in reducing the negative consequences of work stress, such as burnout. Therefore, senior management and direct supervisors should make assiduous efforts to strengthen positive relationships among colleagues and between staff and their supervisors and, if necessary, adopt specific measures to improve them. A prerequisite for this is the regular recording of the typical working climate in the institutions. In the Swiss penal system, the working climate is only sporadically and irregularly recorded. It is crucial that a trustful and respectful way of dealing with each other be fostered in everyday working life. This task is critical for direct supervisors, but it must also be demonstrated by senior management.

Furthermore, facilities in which employees can spend their breaks together as well as regular team events are essential in supporting team cohesion. Because victimization is related not only to the dangerousness of inmates but also to forms of structural violence in correctional facilities, these measures also have a preventive effect. They create positive work environments that influence the overall culture and social climate while contributing to a more peaceful workplace (see, for example, Liebling & Arnold, 2005).

As a normal reaction to such incidents, the institutional culture and the work environment should also foster an atmosphere that allows staff to speak openly about victimization, stress, and burnout. To further promote positive relationships outside the work context, it is imperative for employers to ensure an adequate work–life balance. In corrections, it is also essential to make the appropriate arrangements for employees to talk about their working life outside the institution. To support staff to speak openly about victimization, the employer must explicitly delineate the rules concerning data protection; employees must know to whom, and to what extent, they are allowed to speak outside of the institution. If these rules are clear, employees can be encouraged to discuss and manage work problems outside the institution as well.

Moreover, in the event of victimization, the stress-reducing effects of positive social relationships should be considered and fostered. Cohesion among colleagues, in particular, should be strengthened by means of security training, including techniques and standard routines for dealing with conflicts between inmates, breaking up inmate fights, and reacting to assaults. Here, female employees should be especially encouraged and included. It also seems important to enhance the role of superiors who, according to the results of our study, tend to play a subordinate role in overcoming the burden of victimization. One approach could be to debrief employees who have experienced or observed violence. This debriefing should also be done in marginal cases of violence and not only when something dangerous has happened. To this end, superiors should receive training in useful victim communication techniques that also acknowledge gender differences among staff. Training may contribute to reducing the amplification effects revealed by this study and relieve employees from seeking social support from outside the institution in order to cope with their victimization. A standardized institutional response could also be beneficial.

To confirm the usefulness of these measures, further research is needed, particularly because negligible forms of violence – Bowker’s (1980) “daily grind” – frequently appear not be

to taken seriously by employees in corrections. It may be that supervisors are not even aware of these incidents.

The results of the present study should be considered in light of several potential limitations (see Isenhardt & Hostettler, 2016). The first concern relates to the cross-sectional nature of the study: Because all data were collected simultaneously at a single time point, the causal sequence of the variables in the mediation model cannot be unambiguously determined. Although both forms of violence are retrospective measures that allowed us to introduce a temporal element into the analysis, we cannot be sure that the sense of security indeed mediates the relationship between violence and burnout. Ideally, the sense of security and burnout should be measured at different time points (Maxwell & Cole, 2007). However, the results of the present study are in line with prior research, and social relationships can be expected to be more or less stable over a period of 6 months (Rogers & Kelloway, 1997; Schat & Kelloway, 2000, 2003). Secondly, both victimization measures could be biased due to their retrospective measurement, which may suffer from bias due to memory gaps (Robinson & Clore, 2002; Sato & Kawahara, 2011). Respondents could have had problems remembering and rating precisely how often they had experienced or observed violence during the previous 6 months. Thirdly, violence among staff members could not be included as an important source of job stress, even though it has been found in some studies to have a more substantial impact than victimization by inmates (e.g., Kunst et al., 2008). A fourth concern is that the analysis did not consider measurement error, and the mediating effect of the sense of security may be underestimated (Muthén, Muthén, & Asparouhov, 2016). Further, it may be interesting to include social support measures that are more closely related to victimization. Such an approach would also allow for a detailed examination of the proposed connection between positive social relationships and the availability of victimization-related social support.

## Conclusion

Despite the abovementioned limitations, this research can add to the knowledge about the prevention of negative consequences of workplace violence within the correctional context. With some caution, the findings can also be applied to other occupations prone to an increased risk of violence by clients, such as health care, social work, and law enforcement professions. Within this study, we tested, on the basis of previous research, whether positive social relationships at work (with direct supervisors and colleagues) and support from family and friends reduce the otherwise negative consequences of inmate violence on correctional staff's sense of security and burnout. The results indicated that all three forms of social relationships increased the individual sense of security and decreased correctional staff burnout.

As regards the proposed buffering effects of social relationships, the results were mixed. A positive relationship with direct supervisors did not turn out to be a moderator. A high degree of cohesion among colleagues acted as a buffer against the adverse effect of observing violence between inmates on the sense of security and, mediated by the sense of security, on burnout. Gender comparisons revealed some differences, and the moderation of cohesion among colleagues was only significant for male employees. Support from family and friends had no buffering effect; on the contrary, it had an amplifying effect. This moderation was similar for both genders. However, the overall effect of support from family and friends was negative, and overall disengagement was reduced when support from family and friends was high. Based on these findings, we suggest that senior management and direct supervisors develop a series of measures that contribute to a more positive working environment which helps to reduce violence within correctional facilities and helps employees to deal and cope with various forms of violent workplace victimization.

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## Tables

Table 1

*Descriptive Statistics and Correlations of Study Variables*

Variable	<i>M</i>	<i>SD</i>	Range	1	2	3	4	5	6	7	8
1. Female	0.28	0.45	0;1	1.00							
2. Exhaustion	2.24	0.62	1;4	.05*	1.00						
3. Disengagement	1.90	0.53	1;4	-.06*	.56*** (.51***/.59***)**	1.00					
4. Sense of security	3.96	0.71	1;5	.06**	-.35*** (-.35***/- .36***)	-.39*** (-.32***/- .42***)*	1.00				
5. Experienced violence	0.04	0.18	0;1.8	-.02	.13*** (.19***/.11***)	.10*** (.06/.11***)	-.16*** (-.15**/- .16***)	1.00			
6. Observed violence	0.07	0.26	0;4.5	-.02	.14*** (.16***/.15***)	.10*** (.00/.136***)**	-.22*** (-.25***/- .21***)	.35*** (.22***/.38***)**	1.00		
7. Relationship with direct supervisor	3.59	0.59	1;5	.04*	-.26*** (-.20***/- .28***)	-.38*** (-.34***/- .40***)	.24*** (.12**/.28***)**	-.05* (.04/- .07**)*	-.04 (-.02/- .04)	1.00	
8. Cohesion with colleagues	3.45	0.56	1.5.5	-.07**	-.16*** (-.16***/- .16***)	-.18*** (-.19***/- .17***)	.11*** (.16***/.10***)	.02 (.05/.01)	.03 (-.08/.07***)**	.29*** (.30***/.27***)	1.00
9. Support from family & friends	4.12	0.80	1;5	.12***	-.25*** (-.21***/- .27***)	-.27*** (-.16***/- .31***)**	.26*** (.18***/.29***)**	-.06** (-.05/- .07*)	-.10*** (-.09*/- .10***)	.15*** (.07/.17***)*	.08** (.11*/.08**)

*Note.* *M* = mean, *SD* = standard deviation. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ . Correlations for females and males are divided by a slash, with numbers on the left representing women. Correlations between female and male employees have been tested for significance of differences; the results of this test follow the brackets.  $N = 2,045$ .

Table 2

*Indirect Effects and Moderated Indirect Effects*

Variables	Exhaustion		Disengagement	
	<i>b</i>	<i>p</i>	<i>b</i>	<i>p</i>
Experienced violence	.014	.004	.015	.005
Observed violence	.041	.000	.043	.000
Experienced violence $\times$ relationship with direct supervisors	−.006	.310	−.006	.313
Experienced violence $\times$ cohesion with colleagues	−.001	.869	−.001	.870
Experienced violence $\times$ support from family and friends	−.004	.135	−.005	.120
Observed violence $\times$ relationship with direct supervisors	−.008	.281	−.009	.270
Observed violence $\times$ cohesion with colleagues	−.010	.048	−.011	.053
Observed violence $\times$ support from family and friends	.003	.300	.003	.280

*Note.* All indirect and moderated indirect effects are mediated by the sense of security.

Unstandardized results (based on standardized continuous study variables).  $N = 2,027$ .

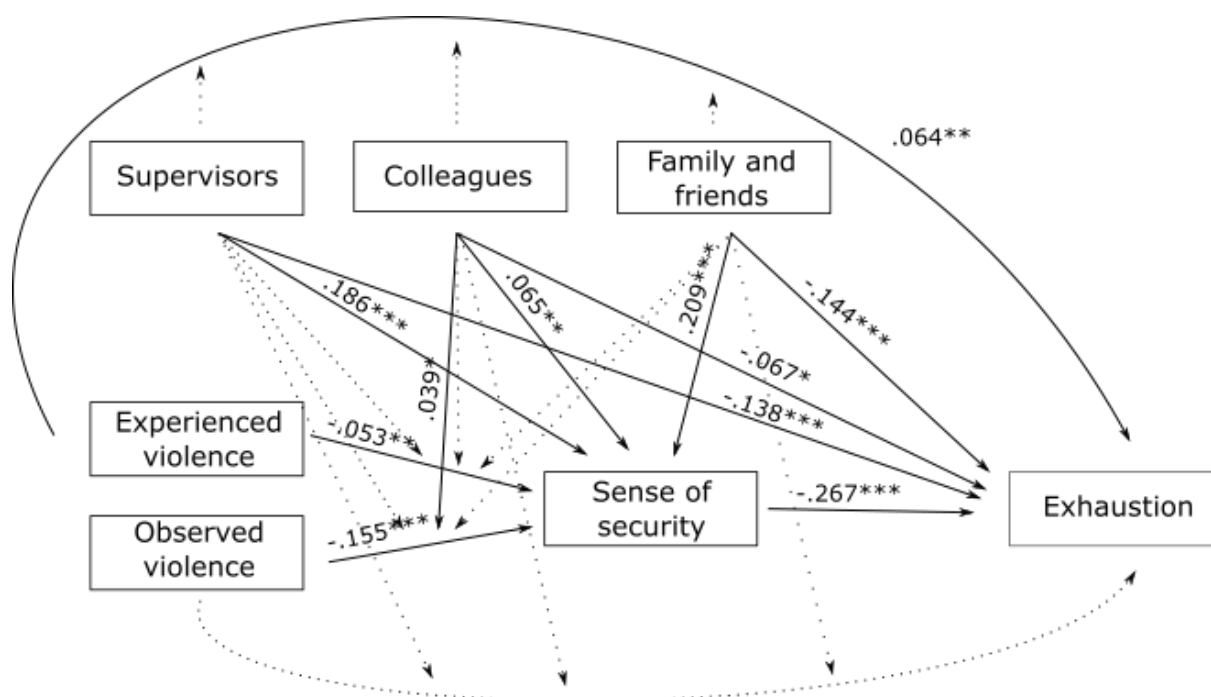
Table 3

*Results of Multigroup Analysis for Indirect and Moderated Indirect Effects*

Effect	Female		Male		Significance of Differences		
	<i>b</i>	<i>p</i>	<i>b</i>	<i>p</i>	Wald $\chi^2$	<i>df</i>	<i>p</i>
Observed violence mediated by sense of security on exhaustion; moderated by cohesion with colleagues	.008	.281	-.028	.004	9.185	1	.002
Observed violence mediated by sense of security on disengagement moderated by cohesion with colleagues	.009	.311	-.028	.007	8.102	1	.004

*Note.* Only indirect and moderated indirect effects exhibiting significant differences between females and males are displayed (Wald  $\chi^2$ ,  $p < .05$ ). Unstandardized results (based on standardized continuous study variables).

## Figures



*Figure 1.* Results of parameter estimation for exhaustion. Unstandardized results (based on standardized continuous study variables). Dashed lines represent paths which were included but not significant. Cluster is institution; standard errors were corrected for non-independence. Covariates (employee gender, employee age, tenure, working role, inmate gender, inmate age, and inmate status) are omitted to improve clarity.  $N = 2,023$ ,  $*p < .05$ ,  $**p < .01$ ,  $***p < .001$ .



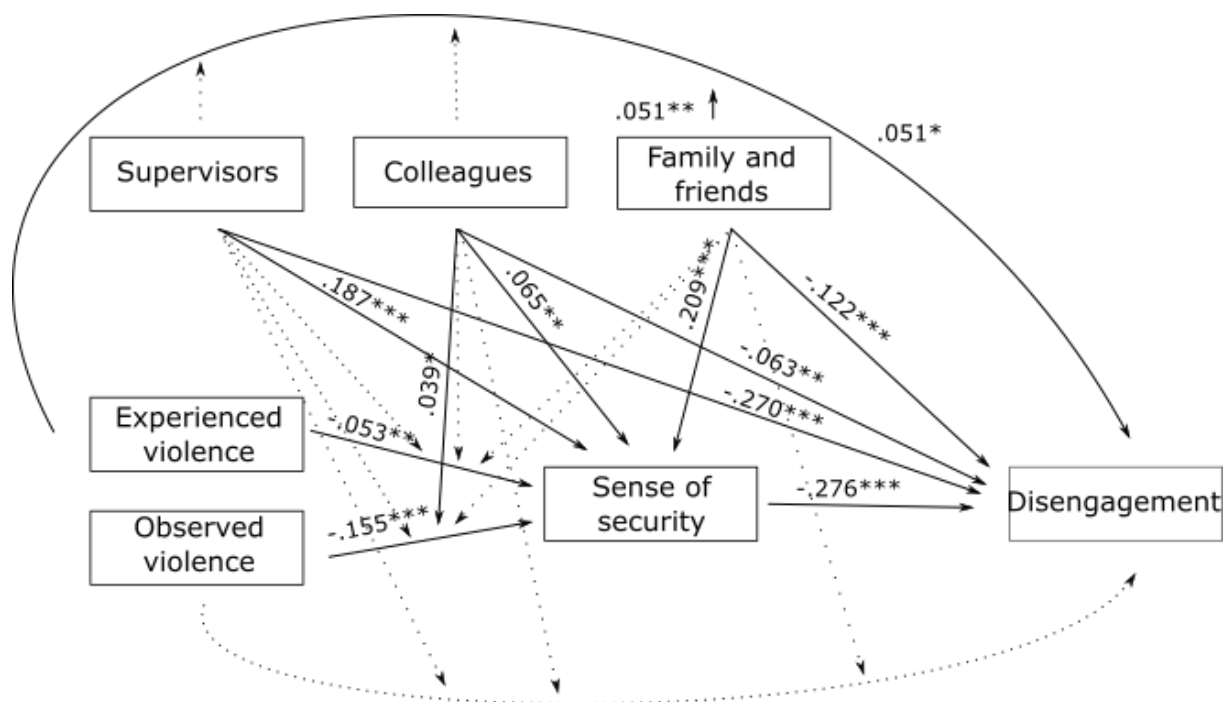
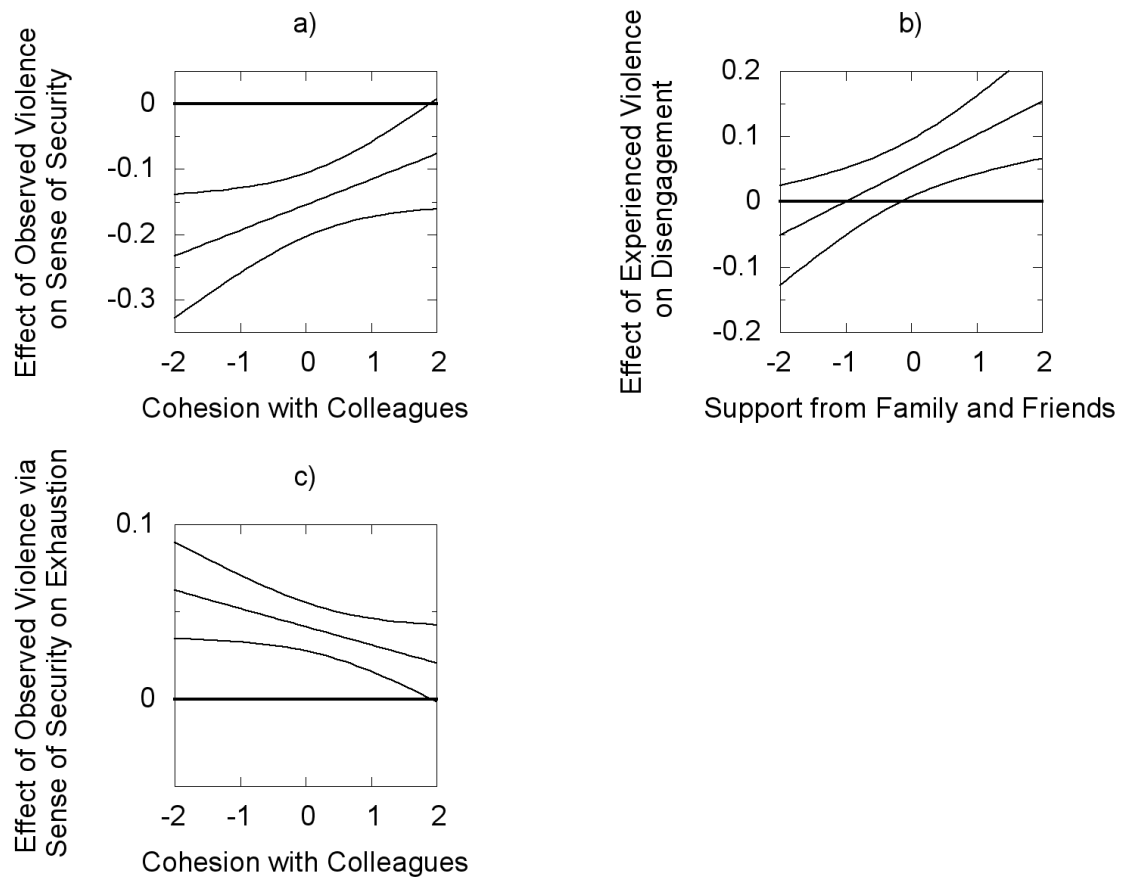
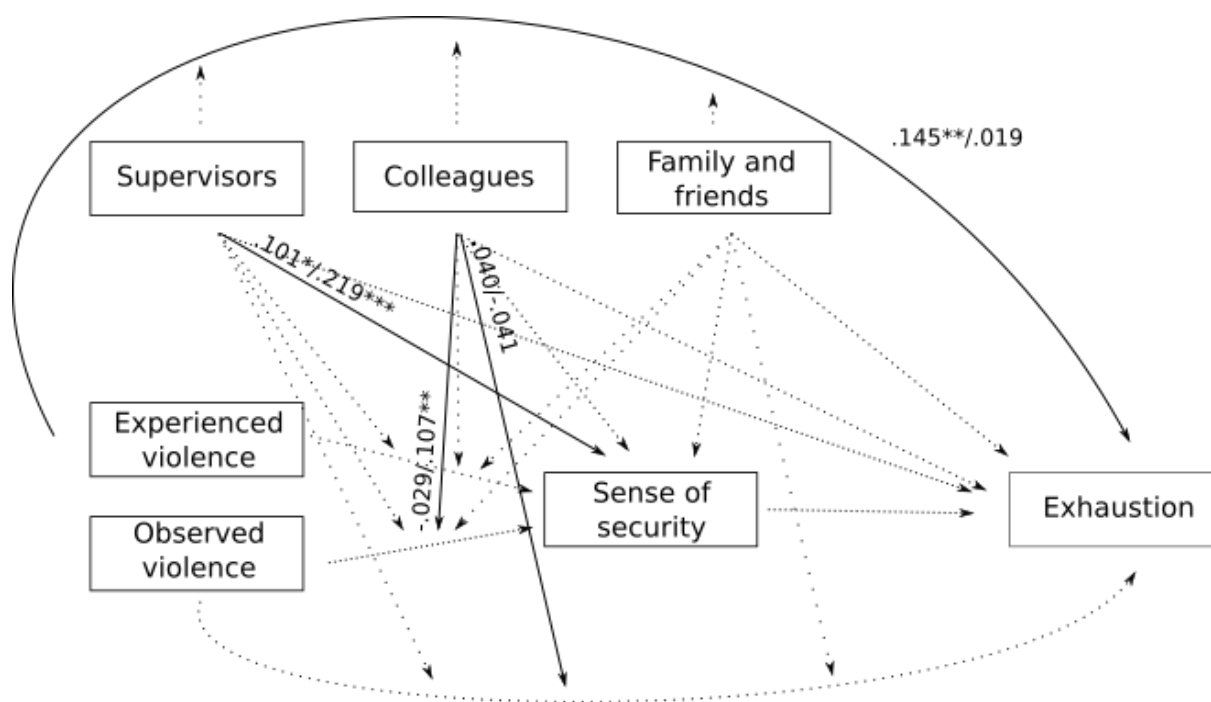


Figure 2. Results of parameter estimation for disengagement. Unstandardized results (based on standardized continuous study variables). Dashed lines represent paths which were included but not significant. Cluster is institution; standard errors were corrected for non-independence.

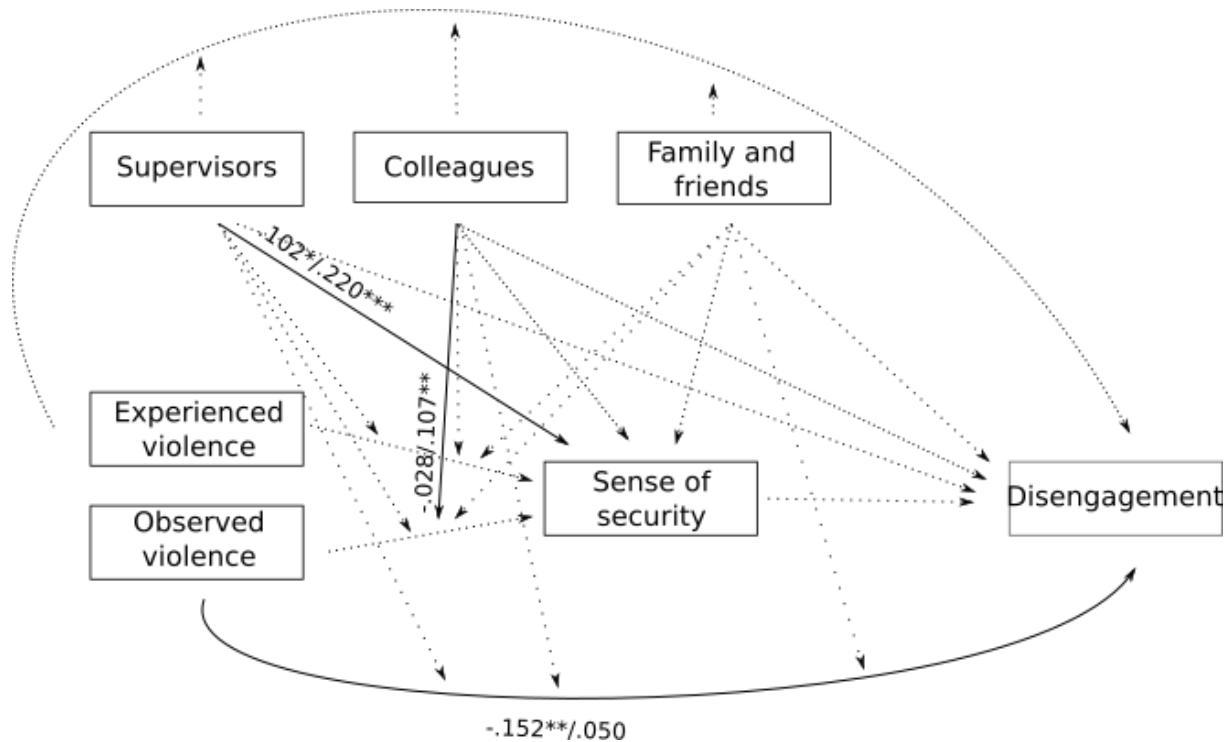
Covariates (employee gender, employee age, tenure, working role, inmate gender, inmate age, and inmate status) are omitted to improve clarity.  $N = 2,023$ ,  $*p < .05$ ,  $**p < .01$ ,  $***p < .001$ .



*Figure 3.* Confidence bands of significant moderations. (a) Moderation by cohesion with colleagues of the effect of observed violence on sense of security. (b) Moderation by social support from family and friends of the effect of experienced violence on disengagement. (c) Moderation by cohesion with colleagues of the indirect effect of observed violence mediated by sense of security on exhaustion. Note that the oblique line represents the effect of the independent variable on the dependent variable ( $y$ -axis) according to the value of the moderator ( $x$ -axis). The other two lines represent the lower and upper limits of the 95% confidence interval for this effect. The effect is significant for every level of the moderator ( $x$ -axis) where the value  $y = 0$  lies outside the confidence interval.



*Figure 4.* Results of multigroup analysis for exhaustion comparing female and male employees. Unstandardized results (based on standardized continuous study variables). Results for females and males are divided by a slash, with numbers on the left representing women. Dashed lines represent paths that were included but revealed no significant differences between female and male employees (Wald  $\chi^2$ ,  $p > .05$ ). Cluster is institution; standard errors were corrected for nonindependence. Covariates (employee age, tenure, and working role, and inmate gender, age, and status) are omitted to improve clarity.  $N = 2,015$  ( $N_{\text{female}} = 564$ ,  $N_{\text{male}} = 1,451$ ),  $*p < .05$ ,  $**p < .01$ ,  $***p < .001$ .



*Figure 5.* Results of multigroup analysis for disengagement comparing female and male employees. Unstandardized results (based on standardized continuous study variables). Results for females and males are divided by a slash, with numbers on the left representing women. Dashed lines represent paths that were included but revealed no significant differences between female and male employees (Wald  $\chi^2$ ,  $p > .05$ ). Cluster is institution; standard errors were corrected for nonindependence. Covariates (employee age, tenure, and working role, and inmate gender, age, and status) are omitted to improve clarity.  $N = 2,015$  ( $N$  female = 564,  $N$  male = 1,451),  $*p < .05$ ,  $**p < .01$ ,  $***p < .001$ .