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«We're made of flesh and blood, too»: New models of the consequences of client-initiated workplace violence

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We're made of flesh and blood too: New models of the consequences of client-initiated workplace violence

Sonja MÜLLER

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Summary

Workplace violence and psychological aggression have been found to have many and severe personal and organizational consequences. In certain occupations, the occurrence of client-initiated physical assaults, threats, and psychological aggression cannot be completely averted. It is therefore crucial to find new and explore known factors that mitigate negative consequences of such victimization. This is the main aim of this thesis, which focuses on violence and hostility against public officials.

In Study 1, data from a sample of 330 frontline staff of job center and social security offices was used to test an extended structural model of the consequences of workplace violence. The results confirmed the mediational role of fear of future violence with regard to psychological and physical well-being and irritability, and they demonstrated the importance of the newly introduced variables perceived prevention of violence and perceived coping ability with future violence.

The aim of Study 2 was to examine whether previous findings on the consequences of workplace violence—including the mediating role of fear of future violence—apply to a high-risk occupational group, namely police officers for whom future victimization seems virtually inevitable. I suggested and tested a relational model and compared it with a series of alternative models, which allowed to estimate the relative influences of exposure to violence and aggression, of fear of future violence, and of perceived coping ability on turnover intentions, well-being, irritability, and symptoms of burnout. The analysis of data from 596 frontline police officers revealed that the perceived likelihood and fear of future violence fully mediated the relationships between exposure to psychological aggression and outcomes, but they only partially mediated the relationships between exposure to violence and strains. Perceived coping ability was a predictor of similar strength as fear.

Study 3 employed longitudinal data of 112 police novices to further investigate the role of perceived coping ability. It was found to have main effects on emotional exhaustion and depersonalization, and to buffer the effects of high levels of exposure to violence on emotional exhaustion, but not depersonalization. The results also indicate the existence of a vicious circle of victimization and depersonalization.

The aim of Study 4 was to explore resources related to the organizational climate and culture that might mitigate consequences of client-initiated violence and hostility against police officers by predicting perceived coping ability with future workplace violence, fear of future violence, or depersonalization. Care and communication factors, namely perceived prevention of violence, stressor-specific support, the talk climate with respect to disturbing experiences in general, and the discussion of workplace victimization in particular accounted for a significant amount of variance beyond victimization and perceived coping ability in all three investigated outcome variables and in both samples from Study 2 and 3. Practical implications are discussed.

Keywords: client-initiated workplace violence and psychological aggression; fear of future violence; perceived coping ability with future violence; perceived prevention of violence; burnout; emotional exhaustion; depersonalization; police stress

.

Résumé

Il a été démontré que la violence et les agressions psychologiques sur le lieu de travail entraînent de nombreuses conséquences sévères, tant personnelles qu'organisationnelles. Dans certains domaines professionnels, la présence d'agressions physiques, de menaces ou d'agressions psychologiques initiées par des clients ne peut être complètement évitée. C'est pourquoi il est essentiel d'identifier de nouveaux facteurs et d'explorer plus avant les facteurs connus qui peuvent réduire les conséquences négatives de pareilles persécutions. C'est le but principal de cette thèse, qui est centrée sur la violence et l'hostilité contre les employés de la fonction publique.

Dans l'étude 1, les données d'un échantillon de 330 employés de première ligne d'offices pour l'emploi et de bureaux de sécurité sociale ont été utilisées pour tester un modèle structurel (*extended structural model*). Les résultats ont confirmé le rôle médiateur de la peur de la violence future sur le bien-être psychologique et physique ainsi que sur l'irritabilité, et ils ont démontré l'importance des variables nouvellement introduites de prévention de la violence perçue et de capacité de coping perçue face à la violence future.

Le but de l'étude 2 était d'examiner si les découvertes antérieures sur les conséquences de la violence sur le lieu de travail –incluant le rôle médiateur de la peur de la violence future– s'appliquent à un groupe à haut risque occupationnel, c'est-à-dire des agents de police pour qui la persécution future semble inévitable. J'ai proposé et testé un modèle relationnel et l'ai comparé à une série de modèles alternatifs, ce qui a permis d'estimer les influences relatives de l'exposition à la violence et à l'agression, de la peur de la violence future et de la capacité de coping perçue sur les intentions de turnover, le bien-être, l'irritabilité et les symptômes de burnout. L'analyse des données de 596 agents de sécurité de première ligne a révélé que la probabilité estimée de violence future et la peur de celle-ci jouent un rôle de médiation complète sur le lien entre exposition aux agressions psychologiques et leurs conséquences, mais qu'elles n'avaient qu'un effet de médiation partielle sur la relation entre exposition à la violence et *strain* (réponse aux stresseurs). La capacité de coping perçue était un prédicteur d'importance similaire à celle de la peur.

L'étude 3 se basait sur des données longitudinales de 112 policiers débutants pour examiner le rôle de la capacité de *coping*. Il a été démontré que cette dernière a des effets sur l'épuisement émotionnel et la dépersonnalisation et qu'elle tient une fonction de tampon (*buffer effect*) en ce qui concerne les effets de forte exposition à la violence sur l'épuisement émotionnel, mais pas sur la dépersonnalisation. Les résultats indiquent également l'existence d'un cercle vicieux entre persécution et dépersonnalisation.

Le but de l'étude 4 était d'explorer les ressources provenant du climat et de la culture organisationnels qui pourraient réduire les conséquences de la violence et de l'hostilité initiées par les clients envers les agents de police par le biais de la prédiction des capacités de coping perçues face à la violence future, de la peur de la violence future ou de la dépersonnalisation. Les facteurs de protection et de communication, à savoir la prévention de violence perçue, le support spécifique à un stresseur et le climat de parole, en lien avec les expériences perturbantes en général et les discussions de la persécution sur le lieu de travail en particulier, expliquaient le taux de variance entre persécution et capacité de coping perçue pour les trois variables de conséquences étudiées (*outcomes variables*) et ce dans les deux échantillons des études 2 et 3. Les implications pratiques sont discutées.

Mots-clés: violence et agression psychologique sur le lieu de travail initiées par les clients; peur de la violence future, capacité de coping perçue face à la violence future; prévention de la violence perçue; burnout; épuisement émotionnel; dépersonnalisation; stress de la police.

List of Publications

This thesis is based on the following papers:

I Mueller, S., & Tschan, F. (2011). Consequences of client-initiated workplace violence: The role of fear and perceived prevention. Journal of Occupational Health Psychology, 16, 217–229.

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II Mueller, S., & Tschan, F. (2015). *Facing high levels of workplace violence: Mediator and moderator effects on victimization-strain relationships in police officers.* Manuscript submitted for publication.

III Mueller, S. (2015). *Care and communication about workplace victimization as resources that mitigate consequences of violence and hostility against police officers*. Manuscript ready for submission.

Parts of this research have been presented elsewhere:

Oral presentation and publication

Congress "Eigensicherung & Schusswaffeneinsatz bei der Polizei", 15th February 2011, Frankfurt am Main, Germany:

Müller, S. (2011). Gewalt im Polizeialltag – Psychologische Auswirkungen von direkten und indirekten Gewalterfahrungen auf Polizistinnen und Polizisten. In C. Lorei (Ed.), Eigensicherung & Schusswaffeneinsatz bei der Polizei: Beiträge aus Wissenschaft und Praxis 2011. Frankfurt: Verlag für Polizeiwissenschaft.

Oral presentations in four Swiss police corps.

Poster presentations

10th Conference of the European Academy of Occupational Health Psychology, 11-13 April 2012, ETH Zuerich, Switzerland:

Poster "Violence and aggression against the police: Perceived coping ability as a buffer of the relationship between workplace violence and strain"
– adjudged as BEST POSTER by the EAOHP

Annual Research Forum of the Swiss National Center of Competence in Research in Affective Sciences, 9-10 February 2012, Université de Genève, Switzerland:

Poster "Attacked, threatened, insulted at work and on patrol: The role of fear and perceived coping ability"

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My father’s experience as a job consultant inspired my initial research on the topic of workplace violence. A veteran police officer’s private disclosure of feelings related to violence on the job made me aware that there is no protective shell against the effects of violence, not even for seasoned police officers. It led to my decision to research the consequences of workplace violence in this particular occupational group. I thank both of them.

For a decade, this thesis project absorbed a lot of my leisure time. At times, it also absorbed most of my energy, which was lacking with respect to nurturing family relations and friendships. I thank my parents and my family, especially my nieces Gianna and Enya, and all my friends for their tolerance, patience, and encouragements. My loving thanks go to my partner Hansruedi Riniker, for watching over my health, for being patient and supporting, for sacrificing so much time that he would have liked to spend together. I know that the completion of this project will be a relief as much for him as it is for me.

This thesis is dedicated to the victims of workplace violence and to those who manage(d) to remain kindhearted in spite of exposure to high levels of work-related hostility.

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1 Introduction

1.1 Topic

When I started research on workplace violence in 2004 and work on this thesis in spring 2006, it had been increasingly recognized as a serious public and occupational health concern in Britain and America (e.g., Runyan, Zakocs, & Zwerling, 2000; Schat & Kelloway 2003), and thorough research into personal and organisational outcomes (e.g., Rogers & Kelloway 1997; LeBlanc & Kelloway 2002) or measures of prevention (e.g., Runyan, 2001) had been initiated. In Switzerland, however, although workplace violence had cost several lives in the preceding years, and threats of violence appeared to be an emerging problem in several public service professions, there was no public discourse about the topic, it was not addressed officially or over-institutionally, and peer-reviewed published empirical research on workplace victimization in Swiss occupational groups was not scarce, but—to my knowledge—inexistent.[1]

There was, and still is, no official statistic registering incidents of workplace violence across all occupational groups in our country. There is, however, one statistic that covers reported violence and threats against public authorities and public officials: the Swiss police crime statistics of the Federal Statistical Office (FSO).

1.2 Violence and Threats against Public Authorities and Public Officials

In Switzerland, a specific provision of the law addresses violence and threats against public authorities and public officials (which include civil servants and employees of a public administrative authority or of an authority for the administration of justice).

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[1] A literature search in the databases PsychINFO and SocINDEX yielded two publications that were somewhat related to the topic, but did not fully match it: a study on weapon-carrying by 15-year-olds at Swiss schools (Kuntsche & Klingemann, 2004), and a study investigating aggressive dispositions and conflict management strategies in psychiatric nursing staff of the Psychiatric University Hospital in Zurich (Venturelli, Agarwalla, Eich, Hiss & Küchenhoff, 2006). Later, I became aware of Patrik Manzoni's research on violence between the police and the public, which was the subject of his PhD thesis (Manzoni, 2003) and of which parts were published in a scientific journal in October 2006 (Manzoni & Eisner, 2006), as well as of Baitsch's (2003) study on subtle violence against police officers and paramedics (EMTs), which was carried out for intra-organizational purposes and remained unpublished. Published research on workplace violence in Switzerland remains scarce with one international research group publishing on patient and visitor violence experienced by nurses in general hospitals in Switzerland (e.g., Hahn, Müller, Needham, Dassen, Kok, & Halfens, 2010) and on resident aggression toward caregivers in nursing homes (e.g., Zeller, Dassen, Kok, Needham, & Halfens, 2012), and some research on violence against sex workers (Rössler, Koch, Lauber, Hass, Altwegg, Ajdacic-Gross, & Landolt, 2010; Büschi, 2014).

Art. 285 of the Swiss Criminal Code states:

> „1. Any person who by the use of violence or threats prevents an authority, one of its members or a public official from carrying out an official act, or coerces them to carry out such an act, or attacks them while they are carrying out such an act, is liable to a custodial sentence not exceeding three years or to a monetary penalty. (...)
>
> 2. If the offence is committed by a mob, any person who participates in the mob is liable to a custodial sentence not exceeding three years or to a monetary penalty.
>
> Any participant who uses violence against persons or property is liable to a custodial sentence not exceeding three years or to a monetary penalty of not less than 30 daily penalty units."

The Swiss police crime statistics reveals a strong increase of such offences between 1997 and 2012, as can be seen in Figure 1. In 2012, the number of reported cases of violence or threats against public authorities and public officials was 7.7 times higher than in 1990 (corrected for the population growth). In spite of a decrease in the two years afterwards, it was still 6.5 times higher in 2014 than in 1990.

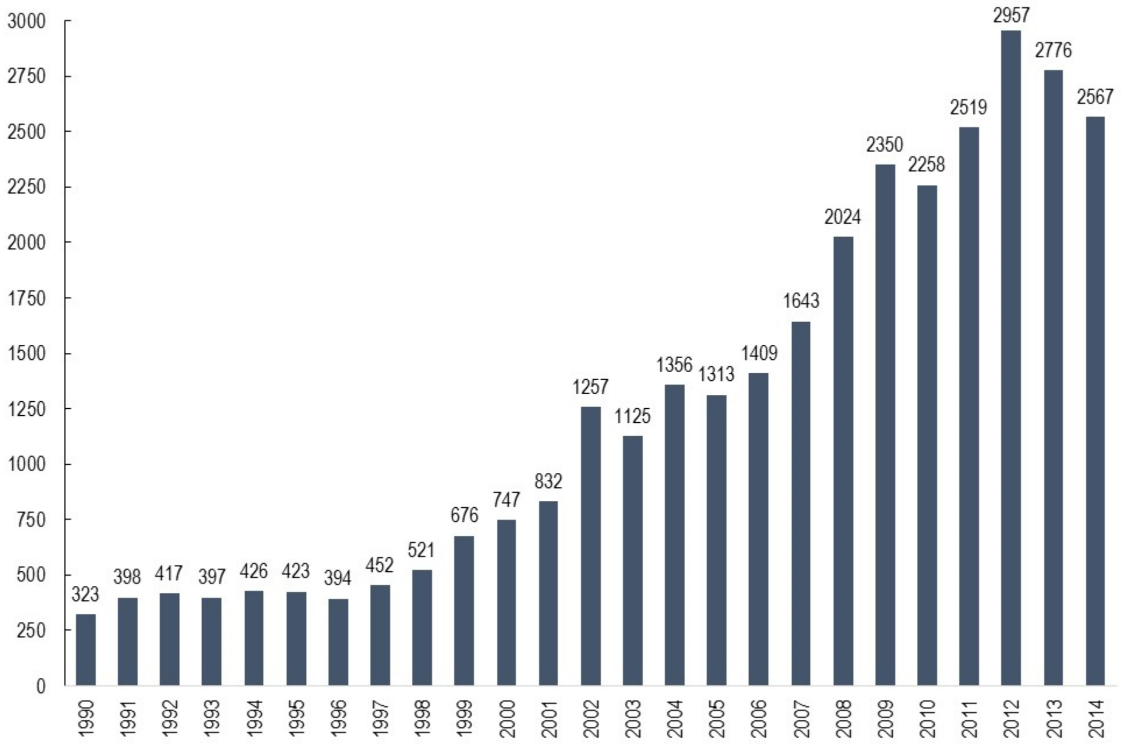

Figure 1: Development of reported violence and threats against public authorities and public officials in Switzerland (Art. 285 of the Swiss Criminal Code)

As in any crime statistics, these numbers reflect only reported crimes, which certainly are an underestimation of the true amount of assaults and particularly threats against members of authorities and public officials. It is therefore unknown to what extent the increase reflects a real rise in violence and to what extent it reflects changes in reporting behaviour. Although the latter cannot be ruled out completely, findings from Germany (Ellrich, Baier, and Pfeiffer, 2012) indicate a real increase of violence against the police, and the majority of police officers participating in surveys carried out by Todesco (2009) and myself, reported that in their view violence and threats increased considerably over the last years, in quantity as much as in quality.

This publication-based doctoral thesis addresses the interplay of exposure to client-initiated workplace violence and psychological aggression, its adverse outcomes, and intervening factors in occupational groups that provide official services to their clients or the public. First, my conceptualization of workplace violence and aggression is explained (section 2). Then, the theoretical framework and prior empirical work that builds the foundation of my research is introduced (section 3). The objectives of the current research are described, and an overview of the four empirical studies is provided (section 4). My empirical work is presented in the form of three scientific journal articles. In the first article, an extended model of the consequences of client-initiated workplace violence is suggested and tested with data from a sample of professionals from medium-risk occupational groups (section 5). The second article contains two studies: One proposes a structural model of the consequences of high levels of client-initiated violence and aggression and examines the role of different predictor and mediator variables in a sample of police officers. The other study uses longitudinal data to explore main and moderating effects of perceived coping ability with future violence on symptoms of burnout in police novices (section 6). The third article presents a study that investigates organizational climate and culture factors that might directly or indirectly mitigate consequences of violence and hostility against police officers (section 7). In the final chapter, a general discussion integrates the main findings of the studies and suggests considerations and concepts which should be included in future research on the consequences of client-initiated workplace violence.

2 Definition and Conceptualization of Workplace Violence and Psychological Aggression

Violence and aggression are constructs that many have tried to capture in linguistic terms, but definitions overlap and vary widely. Robben and Nordstrom (1995) stated that “violence is essentially contested: everyone knows it exists, but no one agrees on what actually constitutes the phenomenon” (p. 5). The World Health Organization, acknowledging that there are many ways to define violence, uses the following definition: “The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation.“ (Krug, Dahlberg, Mercy, Zwi, & Lozano, 2002, p. 5). This definition encompasses different types of violence—self-directed, interpersonal and collective violence—and the nature of the violent act can be physical, sexual, psychological, or involving deprivation and neglect. The overlap of this definition—particularly regarding the subtype of interpersonal violence—with definitions of interpersonal aggression is obvious: Baron (1977), for example, stated that “aggression is any form of behavior directed toward the goal of harming or injuring another living being who is motivated to avoid such treatment” (p. 7). Both definitions, the one of violence and the one of aggression, focus on the intent of the actor to harm one or more individuals.

The scientific understanding of workplace violence and aggression and their causes and consequences has been slowed down by the inconsistencies in conceptualizations and operationalizations (e.g., Schat & Kelloway, 2005; Schat, Frone, & Kelloway, 2006), in particular with respect to what kind of behavior should be included in the definitions of “violence” or “aggression”. Also, some researchers (e.g., Barling, Dupré, & Kelloway, 2009; Folger & Baron, 1996; Neuman & Baron, 2005; Schat et al., 2006) use workplace aggression as overarching term that refers to all forms of intentional harm-doing behavior in the workplace, whereas workplace violence would constitute the subtype of aggression which is physical, active and direct harm-doing (workplace homicides and nonfatal physical assaults). Others (e.g., Chappell & Di Martino, 2000; Mayhew & Chappell, 2007) use violence at work as overarching term that includes a wide range of behaviors, from homicide and physical attacks to verbal threats and abuse to rude gestures or deliberate silence, including multifaceted behavior such as harassment and bullying.

With many different definitions of workplace violence and aggression to choose from, two aspects guided my decision: First, my definition should facilitate comparison of results with preceding research of Kelloway and colleagues (see section 3.4). Second, I wanted to differentiate between behavior that harms or threatens someone's physical integrity, and behavior that might cause exclusively emotional or psychological damage. Thus, in accordance with Jenkins (1996) and Rogers and Kelloway (1997), I originally defined workplace violence as physical assaults and threats of assault against persons at work or on duty. Over the course of the years of my research, I became aware that there were several cases in which persons were assaulted or killed after work, in public or at home, by offenders seeking revenge for actions performed by these victims as part of their jobs. Such cases should certainly be included in my definition. Thus, *I define workplace violence as physical assaults, verbal threats of physical harm (including death), or threatening behavior—behavior that gives someone cause to believe that he or she is at risk of physical harm—directed against persons in the course of, or as direct results of, their work.*[2]

The term vicarious violence has been used for incidents of workplace violence that employees witness or hear about, creating secondary victims (e.g., Schat & Kelloway, 2000, 2005). In medium-risk and particularly in high-risk occupational groups, employees often hear about assaults or threats against fellow employees. To include this type of vicarious violence into measures of workplace violence would, in my view, unduly inflate rates of exposure to workplace violence. Personally witnessing a violent incident, however, might have a profound impact on an individual's sense of security. Thus, throughout this thesis, *exposure to vicarious violence means that a person directly witnessed a physical assault or threat against a teammate*.

In order to avoid terminological confusion with an overarching use of the term 'workplace aggression', I will not to use this term to refer to offensive and insulting verbal and nonverbal behavior, but rather call such behavior 'psychological aggression', which might be shortened to 'aggression' and sometimes replaced by 'hostility', which throughout this thesis refers to hostile (but non-violent) behavior from clients or the public against employees. *I define psychological aggression in the work context as verbal abuse, gestural insults and hostile behavior that does not include physical violence or threats of violence.*

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[2] Throughout this thesis, the terms workplace violence, violence at work, violence on the job, or job-related violence are used synonymously.

Victimization means becoming a victim by being exposed to workplace violence and/or psychological aggression. My conceptualization of workplace violence and psychological aggression is detailed in Table 1.

Table 1: Conceptualization of client-initiated workplace violence and aggression in this thesis (content in italics was only used in the police studies)

Concept	Subtype	Incidents
workplace violence	physical violence/ assaults	physical assaults without a weapon with no or low danger of injuries (e.g., being shoved, pushed, grabbed) physical assaults without a weapon with danger of injuries (e.g., being hit, kicked, bitten, choked) assault with a weapon (e.g., firearm, knife, dangerous object) threats with a weapon (e.g., firearm, knife, dangerous object) *attempts to be run over by a car* *dog attacks commanded by a person*
	threats of violence	*massive* verbal threats of physical violence against the employee threatening behavior (e.g. destruction of personal or workplace property in front of the employee) *serious threats of physical harm to the employee's partner or family* *confrontation with a group of aggressive people (mob)*
	vicarious violence	witnessing a physical assault or threat *with a weapon* against a teammate

Concept	Subtype	Incidents
psychological aggression/ hostility	*verbal abuse & insulting/hostile behavior*	*being yelled, shouted, sworn at* *verbal and gestural insults, disrespectful comments* *being spat at* *being ignored when giving orders* *being ignored when attempting to make contact* *being touched in a disrespectful (but not violent) way* *sexual harassment by words or gestures* *unjustified complaints*

Workplace violence and aggression have several different sources and, related to that, various causes. In order to obtain reliable research results as much as with regard to the development of appropriate preventative measures, it is necessary to differentiate between different sources of workplace violence. The Californian Division of the Occupational Health and Safety Administration divided workplace violence events based on the perpetrator's relationship to the business into three major types: (I) agents with no legitimate business relationships, who usually enter the workplace with criminal intent, (II) agents who are the recipient, or the object, of a service provided by the victim(s), and (III) agents who have a dispute with one or more employee(s) of the affected workplace, for example, current or former employees of the organization, spouses/lovers of an employee (California Occupational Safety and Health Administration, 1995). Peek-Asa, Howard, Vargas, and Kraus (1997) further differentiated between two types of perpetrators that were originally combined in the third category, leading to a categorization of four different types of workplace violence events, to which most current researchers on workplace violence refer (e.g., Merchant & Lundell, 2001; Peek-Asa, Runyan, & Zwerling, 2001; LeBlanc & Barling, 2005; Barling et al., 2009):

I. Criminal Intent: Type I events are characterized by the criminal intent of the perpetrator, who has no legitimate relationship to the organization or its employees, but uses violence or threats as means to commit a criminal act, for example a robbery.

II. Customer/client: Type II events are characterized by the perpetrator's legitimate relationship with the organization as a current or former client, patient, customer, student, inmate, passenger, criminal suspect or member of any other group to which the organization provides services. Violence and threats occur particularly often when clients are in an altered state of mind (e.g., due to alcohol, drugs, or mental illness), when requests or services are denied (e.g., by social service providers) or when the interaction with the service provider is per se unwanted (e.g., interventions of police officers).

III. Worker on worker: Type III events are characterized by the fact that both perpetrators and victims of violence or threats are current or former employees of the same organization. Most often, an (ex-)employee targets one or several co-workers or supervisors for perceived injustice or wrongdoing (e.g., LeBlanc & Barling, 2005). Most of the research on workplace violence and aggression has focused on this type of events (LeBlanc & Kelloway, 2005; Spector, Fox, & Domagalski, 2006).

IV. Personal relationship: Type IV events occur at work, but are not directly work-related. They are characterized by a personal relationship between the perpetrator and the victim, where the perpetrator does not have a relationship with the organization, but attacks or threatens his or her victim while the latter is at work (e.g. victims of domestic/intimate violence or stalking).

Research in the present thesis will be restricted to type II events, namely client-initiated violence, and specifically on assaults, threats and aggression against public officials.

3 Theoretical Framework and Prior Research

The experience of violent crime—whether at work or elsewhere—is a potentially traumatic event for primary victims, as well as for secondary or indirect victims, such as witnesses of serious incidents or their aftermaths (Ainsworth, 2000; Barling, 1996). Reactions to violent events are manifold, including anger, anxiety, depression, loss of control, guilt, sleep disturbance, and obsessive dwelling on the crime (Zedner, 2002). With respect to workplace violence, Barling (1996) recommended the use of a traditional work stress framework, as outlined in Pratt and Barling (1988), to approach and better understand the considerable individual differences in nature and extent of reactions to violent incidents.

3.1 The Work Stress Framework

Based on definitions by Kahn, Wolfe, Quinn, Snoek, and Rosenthal (1964) and Eden (1982), Pratt and Barling (1988) distinguished among a) objective environmental events or characteristics of the environment “that impinge on the perceptual and cognitive processes of normal individuals” (p. 42), called stressors, b) the individual’s subjective experience of these properties or events, called stress, and c) the individual’s maladjustive psychological and/or physiological response to stress, called strain. They also suggested to differentiate stressors depending on four dimensions: specifity of time-onset, duration, frequency or repetitiveness, and severity. Acute stressors, for example, have a clearly defined time onset, are of short duration, occur infrequently, and are of high intensity or severity. Chronic stressors often lack a specific time onset, occur repeatedly, may be of short or long duration and high or low severity. Daily events are characterized by a specific onset, short duration, infrequent occurrence, and low intensity.

Based on his previous research on work stress, Barling (1996) suggested a mediational model in which the direct or vicarious experience of workplace violence is a stressor that will exert direct outcomes (stress), such as fear, and indirect outcomes (strain), such as impaired psychological and psychosomatic well-being as well as impaired organizational functioning (see also section 3.3). Pratt and Barling (1988) pointed to the fact that the impact of a certain stressor varies depending on how the stressor is perceived and appraised by the individual, but they did not enlarge upon this issue, which is central in the transactional model of stress by Lazarus and Folkman (1984).

3.2 The Transactional Model of Stress

For Lazarus, the necessity of a concept of cognitive appraisal in stress theory arose in the Sixties from the observation that although certain environmental events produced stress in many or most people, individual and group differences in the degree and kind of reaction were evident (Lazarus & Folkman, 1984). Also, there were milder, more ambiguous conditions that were experienced as stressful by some people, but not at all by others, meaning that stress cannot be purely environmentally produced, but that individual and group differences in sensitivity and vulnerability to such stressors must exist and influence reactions. Thus, Lazarus and Folkman (1984) posited that "psychological stress is a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being" (p. 19).

In the transactional model of stress (Lazarus & Folkman, 1984), stressful experiences are construed as person-environment relationships, in which an individual's cognitive appraisal determines why and to what extent a particular transaction between the person and the environment is stressful. Primary appraisal means that when confronted with an event or situation, a person evaluates whether what is happening (a person-environment transaction) is relevant to his or her values, goals, commitments, beliefs or intentions (Lazarus, 1999), resulting in the judgement that the transaction is either irrelevant, benign-positive, or stressful. A transaction is appraised as stressful if associated with (1) harm/loss (i.e., injury or damage that has already occurred), (2) threat (i.e., injury or damage that has not yet occurred but is anticipated), or (3) challenge (i.e., an opportunity for growth, mastery or gain) (Lazarus, 1981/1998; Lazarus & Folkman, 1984]. Once an event or situation is appraised as stressful, the person evaluates what can be done about it, that is, what coping options he or she has – constituting secondary appraisal (Lazarus, 1999). Primary and secondary appraisals interact with each other, determining not only the amount of stress, but also the strength and quality of stress-emotions, which all have their particular appraisal patterns: Sadness, depression, and guilt, for example, are associated with harm/loss; fear, anxiety, and anger are associated with threat appraisals; and excitement and eagerness are associated with challenge (Lazarus, 1981/1998; Lazarus & Folkman, 1984). Such appraisals are influenced by cues in the environment, but also by what has been learned from experience and several personality characteristics (Lazarus, 1999). Thus, the same situation might be appraised by one person as a threat, and by another as a challenge, depending on how confident the individuals are about their own capacity to overcome obstacles and to cope with stressors – differences that are captured by Bandura's (e.g., 1983, 1997) concept of self-efficacy. Coping is "the process through which the individual manages the demands of the person-environment relationship that are appraised as stressful and the emotions they generate" (Lazarus & Folkman, 1984, p. 19). It has two functions: the first, and more obvious, is to change the situation for the better; the second is to manage the stress-related emotions in a way that they do not overwhelm the individual and do not damage or devastate morale and social functioning (Lazarus, 1981/1998). The individual's experienced stress as well as his or her coping abilities and efforts determine the nature and extent of the consequences (strain).

3.3 Previous Research on the Consequences of Workplace Violence

Until the end of the 1980s, there were two strands of research regarding or related to workplace violence. One was research on psychological trauma and the development of post-traumatic stress disorder (PTSD), often related to war and disaster survivors (Tehrani, 2004). The second strand was research on workplace homicides and few early studies of nonfatal workplace violence; which both were mainly focused on the prevalence and incidence of workplace violence and on risk factors, or on circumstances of assaults in specific occupational settings, such as health care, social service agencies, or law enforcement (Bulatao & VandenBos, 1996). With few exceptions—such as early studies reporting consequences of patient assaults in (psychiatric) health care settings (e.g., Lanza, 1983) or psychological and psychosomatic problems of bank employees who have experienced armed robberies (Leymann, 1988)—research on the consequences of workplace violence commenced in the 1990ies. An often cited survey on fear and violence in different types of workplaces, undertaken by the Northwestern

National Life Insurance Company (1993/1996), had several methodological shortcomings, but unlike other early surveys that provided data on nonfatal workplace violence, it also assessed *effects* of exposure to violence and harassment, namely victim reactions such as anger, fear, depression, injuries, illness, reduced productivity, and the desire to change jobs. Three out of four victims reported the experience of psychological distress. The authors also emphasized the link between threats of violence in the workplace and elevated burnout rates.

Research on the consequences of workplace violence was still scarce when Barling (1996) suggested a mediational model of direct and indirect outcomes of workplace violence. He posited negative mood, cognitive distraction and fear as direct outcomes which would transmit effects of the psychological experiences of workplace violence to psychological, psychosomatic, and organizational outcomes. He also suggested several moderator variables, such as social support, denial, optimism, and hardiness. Researchers within the field of work and occupational health psychology disproportionately focused on intraorganizational sources of violence, such as disgruntled employees, although the vast majority of fatal and severe nonfatal workplace violence was and is perpetrated by organizational outsiders (e.g., Health and Safety Executive, 2015; LeBlanc & Barling, 2005; Peek-Asa et al., 2001) – nonfatal physical assaults particularly often by customers, clients, patients, inmates, students, or any others for whom an organization provides services (type II events; Peek-Asa et al., 1997). Also, compared to research on the prevalence and antecedents of workplace violence, researchers have placed much less emphasis on its impact and outcomes. Nevertheless, in the course of the last two centuries, the negative consequences of type II events (violence, threats, and psychological aggression) have been established. To illustrate the breadth of personal and organizational outcomes in several occupational settings, I provide an overview of results from four reviews focusing on or at least including consequences of type II workplace events, in Table 2 (Hershcovis & Barling, 2010; Hogh & Viitasara, 2005; Lanctôt & Guay, 2014; Needham, Abderhalden, Halfens, Fischer, & Dassen, 2005).

Table 2: Consequences of type II workplace events: Overview of results from four reviews

Author	Aim/topic	Type of study/ inclusion criteria	Occupational group	No. of studies	Findings / categories of consequences of workplace violence:
Needham, Abderhalden, Halfens, Fischer, & Dassen (2005)	Non-somatic effects of patient aggression (mainly physical assaults) on nurses	Systematic review 1983 to May 2003 Articles from international journals in English or German and reporting at least three non-somatic responses to patient aggression	Nurses	25	19 x bio-physiological (most often anxiety/fear; also disquiet/irritability, body tension, headache, sleep disorder/nightmares, stress); 13 x PTSD symptoms; 22 x emotional (most often anger or guilt/self-blame; also frustration, helplessness, sadness/unhappiness, powerlessness, resentment/ annoyance); 11 x cognitive (disbelief, personal integrity threatened, transformed perception); 13 x social dimensions (insecurity at work, relationship to patient impaired, professional performance impaired, doubts on job appropriateness).
Hogh & Viitasara (2005)	Risk factors and consequences of nonfatal workplace violence (physical violence and threats of violence)	Systematic review of longitudinal studies Up to the middle of 2004 Longitudinal and prospective peer-reviewed studies	Psychiatric health care, Bus drivers, Cohort of working population	(16) 5	Only five studies met the inclusion criteria for *consequences* of violence: Physically harmed staff of a psychiatric hospital reported a felt change in attitude and anger towards the patient, which changed to resentment and to fear of the patient. Physically assaulted nursing staff of a neuropsychiatric hospital reported the following acute and/or lasting responses: anger, being anxious and feeling sorry for the aggressor, tension and increased body awareness, fear of the violent patient and trouble understanding what had happened. Some assaulted staff experienced reactions up to one year after the assault. Assaulted psychiatric nurses reported symptoms of PTSD, a deterioration in mental health, or reduced control of anger. Psychological distress was reported more often after physically injurious assaults. Physically assaulted bus drivers reported PTSD symptoms and mild depressions. The seriousness of the assault was positively correlated to the duration of sick leave. In a Danish cohort study (random sample of the working population), exposure to violence was linearly associated with fatigue five years later.

Author	Aim/topic	Type of study/ inclusion criteria	Occupational group	No. of studies	Findings / categories of consequences of workplace violence:
Hershcovis & Barling (2010)	Comparison of ten types of outcomes of non-violent workplace aggression from three different sources, i.e. supervisors, coworkers, outsiders.	Meta-analysis Up to January 2008 Published and unpublished quantitative studies on workplace aggression with explicitly identified perpetrators	Various, e.g., social workers, teachers, call center staff, flight attendants, trolley car drivers, paramedics, healthcare staff	(55) 32 samples	Exposure to outsider aggression was significantly correlated with emotional exhaustion, depression, interpersonal deviance, psychological distress, organizational deviance, physical well-being, intent to turnover, job satisfaction, and affective commitment. While supervisor or coworker aggression had stronger effects than outsider aggression on several outcomes, this was not the case with regard to emotional exhaustion and depression.
Lanctôt & Guay (2014)	Consequences of exposure to workplace violence (physical assaults, threats, verbal abuse, and sexual harassment) in the healthcare sector	Systematic review 1985 to 2012 Quantitative studies found in databases or web pages, including gray literature, in English or French, measuring at least one form of consequence of being a victim of type II workplace violence in healthcare settings	Healthcare workers	68	29 x physical (most often injuries; also headaches, stomach aches, pain); 47 x psychological (often PTSD symptoms; also anxiety, mental health, depression or depressive symptoms, helplessness, emotional exhaustion, depersonalization, psychological distress, lacking self-esteem, etc.); 25 x emotional (anger, frustration, resentment, sadness, disappointment, despair, powerlessness, guilt, embarrassment, humiliation, feeling degraded, feeling hurt, feeling upset, fear, mistrust, reduced feeling of safety, shock/ surprise/disbelief, etc.); 48 x work functioning (sick leave, turnover intentions and turnover, position transfer or change of duty, impaired job performance/productivity, affected work behavior, reduced job satisfaction, impaired relationships with colleagues, etc.); 10 x relationship with patients/quality of care (reduced quality of patient care, fear of patients, lost pleasure in working with patients, etc.); 4 x social/general (impact on life outside of work, disturbed social/family, concerns about violence in the community and personal safety); 4 x financial (injury-related absence days; injured workers who did not return to work).

Most research is (still) carried out in healthcare settings. This is comprehensible as the risk of violence in these occupational groups, particularly for those working with psychiatric patients or in emergency departments, is elevated. Remarkable is the fact that—although risk-levels are even higher for police officers (e.g., Health and Safety Executive, 2015) and violence against officers has been a topic in early studies of this occupational group (e.g., Skolnick, 1966)—empirical research that specifically address the *consequences* of victimization in police officers is scarce (Perrott & Kelloway, 2006).

3.4 Previous Models of the Consequences of Workplace Violence

My research is based on previous work of Kelloway and colleagues, who investigated the relationship between exposure to workplace violence, several mediator and moderator variables, and consequences of victimization, within the traditional work stress framework (Pratt & Barling, 1988, see section 3.1). The data was mainly analyzed using latent variable structural equation modelling.

3.4.1 Workplace Accidents – Risk Perceptions – Outcomes

In a precursory study, which did not yet examine exposure to workplace violence but responses to occupational hazards and particularly the role of individual perceptions of risk in the workplace, Cree and Kelloway (1997) proposed a model in which the individuals' direct or vicarious exposure to workplace accidents (accident history) and the perceived commitment of managers, supervisors and coworkers to occupational health and safety (perceived attitudes) predict the individuals' subjective appraisal of risk for themselves and for their coworkers (risk perceptions), which in turn predicts turnover intentions and the willingness to participate in safety programs. On the basis of data from 130 production employees at six manufacturing plants, the mediational model was supported, suggesting that risk perceptions mediate the relationships between the examined predictors and outcomes.

Relevant for my research: Risk perceptions mediate the relationship between accident experience and turnover intentions (emphasized in Figure 2).

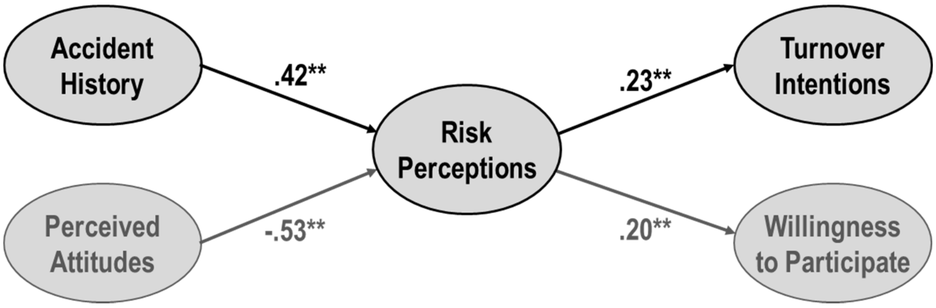
Accident History
.42**
Perceived Attitudes
-.53**
Risk Perceptions
.23**
Turnover Intentions
.20**
Willingness to Participate

Figure 2: Standardized parameter estimates for the model of Cree and Kelloway (1997); **p < .01; emphasis mine

3.4.2 Workplace Victimization – Fear – Outcomes

Rogers and Kelloway (1997) examined the personal and organizational outcomes associated with exposure to violence at work. They proposed a model suggesting that fear of future violence at work mediates the relationships between exposure to physical and verbal attacks, threats of violence, or vicarious experience of violence and negative consequences, namely an impaired psychological and physical well-being, increased turnover intentions, and reduced affective commitment to the organization. The source of violence was not specified. On the basis of data from 194 front line staff members of a bank, the mediational model was supported (see Figure 3).

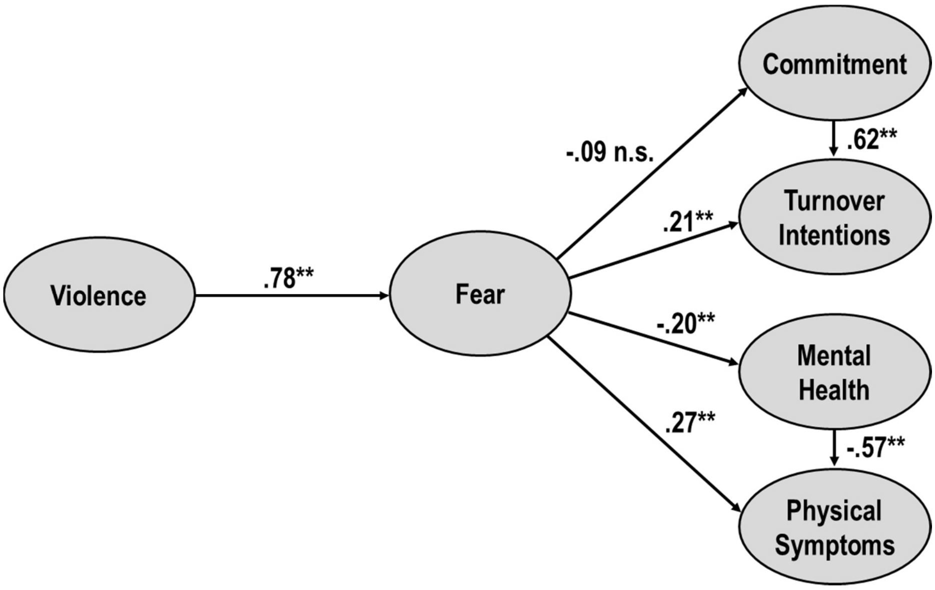
Violence
.78**
Fear
-.09 n.s.
Commitment
.62**
.21**
Turnover Intentions
-.20**
Mental Health
-.57**
.27**
Physical Symptoms

Figure 3: Standardized parameter estimates for the mediational model of Rogers and Kelloway (1997); **p < .01

Relevant for my research: Fear of future violence mediates the relationship between exposure to workplace violence and psychological well-being, somatic symptoms, as well as turnover intentions. Neither exposure to violence nor fear is related to commitment.

The results of Barling, Rogers, and Kelloway's (2001) research on the consequences of in-home healthcare workers' exposure to patient-initiated violence, aggression and sexual harassment confirmed that the associations of workplace victimization and negative consequences (e.g., perceived justice, affective commitment, job neglect) are indirect, mediated by negative mood and, again, fear of future victimization (encompassing violence and sexual harassment).

3.4.3 Perceived Control as Potential Moderator of the Relationship between Workplace Victimization and Outcomes

As previous research on Karasek's (1979) job demands – job control model provided support for direct, indirect and moderating effects of control in stressor-strain relationships, Schat and Kelloway (2000) hypothesized that perceived control would have similar effects regarding the relationships between exposure to workplace violence and negative consequences. Based on Sutton and Kahn's (1987) tripartite conceptualization of control, they developed a measure of perceived control encompassing the dimensions of knowledge about the causes of clients' or persons' negative behaviour (understanding), ability to predict the behavior and reactions of clients or persons at work (prediction), and the perceived capability to avoid or respond to threatening situations at work (influence). Schat and Kelloway hypothesized that the three dimensions of perceived control would moderate the relationships between exposure to workplace violence (including physical attacks, verbal aggression and vicarious violence; the source was not specified) and fear of future violence, as well as between fear and emotional well-being, somatic health, and neglect of job duties. However, moderated multiple regression analyses for two samples (187 hospital staff and 195 group home staff) revealed no significant moderator effects. The following latent variable path analyses showed that perceived control predicted fear and emotional well-being. The final model, displayed in Figure 4, also replicated Rogers and Kelloway's (1997) finding that fear of future violence mediates the relationship between exposure to violence at work and emotional and somatic well-being.

Relevant for my research: Perceived control did not moderate the relationship between violence and fear or between fear and the outcome variables. Again, fear of future violence mediates the relationship between exposure to violence and emotional and somatic well-being.

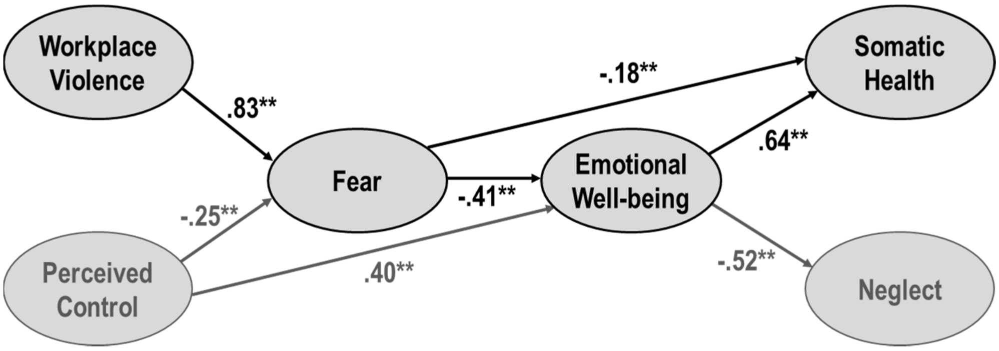

Figure 4: Standardized parameter estimates for the final model of Schat and Kelloway (2000), Sample 1; **p < .01; emphasis mine

3.4.4 Workplace Victimization – Likelihood of Violence – Fear – Outcomes

LeBlanc and Kelloway (2002) expanded Rogers and Kelloway's (1997) model in several ways: First, they developed a risk for violence measure (based on occupational risk characteristics) and incorporated it into the model. Second, they distinguished between public- and coworker-initiated violence and aggression. Third, they introduced the perceived likelihood of future violence in order to differentiate clearly between expectation of future violence and fear of such events. Fourth, they hypothesized that emotional well-being mediates the relationship between fear of future violence and affective commitment to the organization and therefore inserted a direct path between emotional well-being and affective commitment. On the basis of data from 254 employees from 71 different occupations, they showed that the objective risk for violence due to risk characteristics of the job indeed predicted exposure to public-initiated violence (and aggression from both sources) as well as the perceived likelihood of future violence. The latter predicted fear of future violence. Unexpectedly, fear did not predict any of the outcome variables, namely emotional well-being, psychosomatic well-being, affective commitment or turnover intentions. The first three of these outcome variables were, however, predicted by coworker aggression, whereas intent to turnover was predicted by exposure to violence from the public. The results, displayed in Figure 5, demonstrate the necessity to distinguish between different sources of violence and aggression at work.

Relevant for my research: The experience of public violence and aggression predicts perceived likelihood of violence, which in turn predicts fear of future violence.

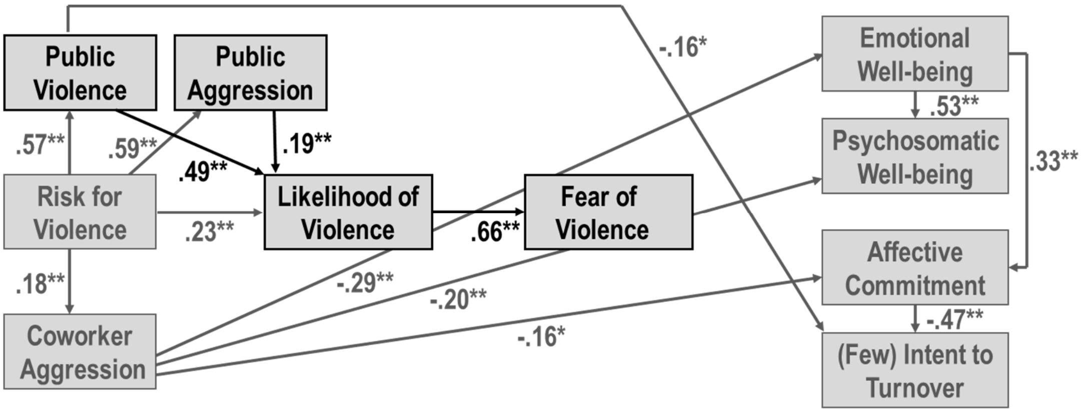
Public Violence
Public Aggression
-.16*
Emotional Well-being
.53**
Psychosomatic Well-being
.33**
.57**
.59**
.49**
.19**
Risk for Violence
.23**
Likelihood of Violence
.66**
Fear of Violence
Affective Commitment
.18**
-.29**
-.20**
-.47**
Coworker Aggression
-.16*
(Few) Intent to Turnover

Figure 5: Standardized parameter estimates for the model of LeBlanc and Kelloway (2002); *p < .05; **p < .01; emphasis mine

3.4.5 Support as a Moderator of the Relationship between Workplace Victimization and Outcomes

As previous research has suggested that social support mitigates the effects of work-related stress, Schat and Kelloway (2003) examined whether two types of organizational support moderate the relationships between workplace violence or aggression and both personal and organizational outcomes. On the basis of data from 225 employees in a health care setting, results of moderated multiple regression analyses showed that instrumental support (received from coworkers, supervisors, and management following exposure to violence or aggression) moderated the effects of violence and aggression on somatic health, emotional well-being, and job-related affect, but not on fear of future violence or job neglect. Informational support (having received training on how to deal with aggressive or threatening events) moderated the effects of violence and aggression on emotional well-being, but not on fear of future violence or the other three outcome variables.

Relevant for my research: Instrumental support interacted with workplace violence and aggression to predict three of four outcome variables. It was, however, not significantly correlated to fear of future violence, and neither type of organizational support moderated the relationships between exposure to violence or aggression and fear.

3.4.6 The "Basic Model" and a New Conceptual Model of the Consequences of Client-Initiated Workplace Violence

To sum up, Kelloway and colleagues suggested and tested several models of the consequences of workplace violence. Thereby, they established relationships leading to what I call the "basic model", presented in Figure 6. Core of the basic model is fear—sometimes divided into cognitive (likelihood) and emotional (fear) aspects—as a mediator between workplace victimization and outcomes. This has been supported by other researchers, such as, for example, Leather, Beale, Lawrence and Dickson (1997), or Harris and Leather (2012).

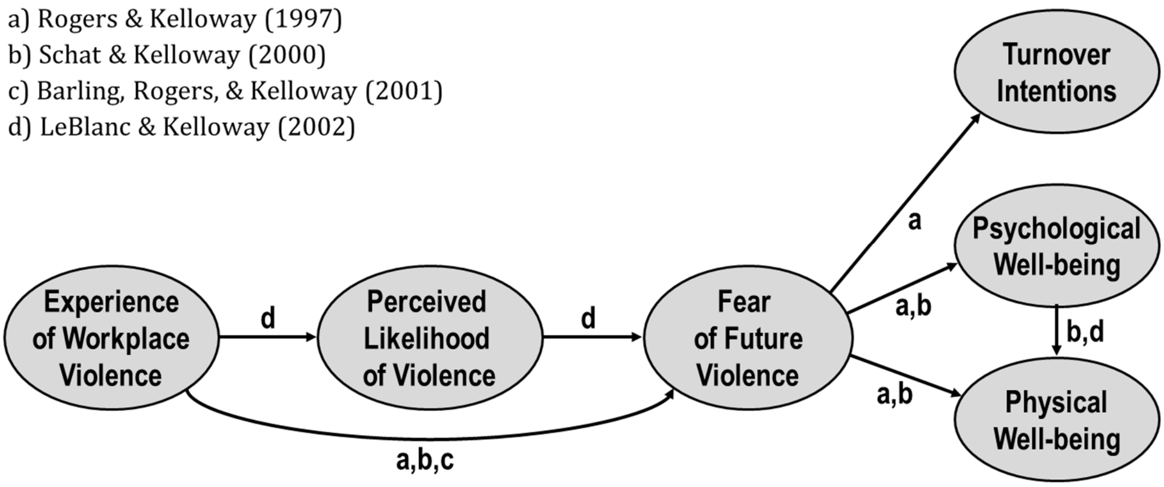
a) Rogers & Kelloway (1997)
b) Schat & Kelloway (2000)
c) Barling, Rogers, & Kelloway (2001)
d) LeBlanc & Kelloway (2002)
Experience of Workplace Violence
d
Perceived Likelihood of Violence
d
Fear of Future Violence
a,b,c
a
Turnover Intentions
a,b
Psychological Well-being
b,d
a,b
Physical Well-being

Figure 6: The basic model of the consequences of workplace violence, based on previous research of Kelloway and colleagues

During my postgraduate studies MSc in Criminology and Criminal Justice (2003/04), I examined the experience of client-initiated violence and preventive measures in Swiss job centers and social security offices (Mueller, 2004). I also suggested a conceptual model of the consequences of client-initiated workplace violence, containing the variables of the “basic model” as well as perceived control and organizational support (see Schat & Kelloway, 2000, 2003, above). Additionally, as elaborated in the first empirical paper (section 5), I approached fear of future workplace violence as a form of fear of crime and suggested two new variables, namely perceived prevention of violence and perceived coping ability with future violence. This was based on the notion of several researchers, that the level of an individual’s fear of crime cannot be explained by previous victimization or exposure to objective risk, but depends on his or her vulnerability (Hale, 1996). Interestingly, Barling (1996) included vulnerability in his mediational model, but he considered it to be part of the psychological experience of workplace violence (the stressor) and it was not included in later empirically tested models of Kelloway and colleagues. In 2004, I did have neither the knowledge nor the means to use structural equation modelling to test several hypothesized relationships together in one model. When I decided to begin work on a PhD thesis on the topic of workplace violence, my first objective was to reanalyze part of the data in such a way.

4 Current Research: New Models of the Consequences of Client-initiated Workplace Violence

4.1 Main Aim and Objectives

The overall aim of this thesis is to increase knowledge about the interplay of exposure to client-initiated workplace violence and psychological aggression, adverse outcomes, and intervening factors. This is of particular relevance with respect to potential approaches to mitigate effects of victimization in occupational groups for which prevention efforts fail to sufficiently protect employees from exposure to workplace violence and aggression, such as certain public officials.

Specific objectives were:

1) To propose and test an extended model of the consequences of workplace violence in a sample of employees with a medium risk for client-initiated workplace violence. (Study I; Paper I)
2) To examine whether previous findings on the consequences of workplace violence—including the mediating role of fear of future violence—apply to a high-risk occupational group, namely police officers. Also, to test whether perceived coping ability with future violence plays a particular role for police officers, for whom future victimization is very likely. (Study II; Paper II)
3) To further investigate the role of perceived coping ability and to test whether it moderates the relationships between workplace victimization (exposure to client-initiated violence or psychological aggression) and symptoms of burnout in police officers. (Study III; Paper II)
4) To explore organizational climate and culture factors that might mitigate consequences of client-initiated violence and hostility against police officers by predicting perceived coping ability with future workplace violence, fear of future violence, or depersonalization. (Study IV; Paper III)

Table 3 presents an overview of all four studies, including sample characteristics and key features of the data collection and analysis.

4.2 Overview of the Empirical Studies

Table 3: Overview of empirical studies

	Study I	Study II	Study III	Study IV
Aim(s)	To propose and test an extended model of the consequences of client-initiated workplace violence.	To examine whether previous findings on the consequences of workplace violence—including the mediating role of fear of future violence—apply to a high-risk occupational group, namely police officers. To propose and test a structural model of the consequences of high levels of client-initiated violence and aggression, and to estimate the relative influences of exposure to violence and aggression, of fear of future violence, and of perceived coping ability on negative outcomes.	To investigate the role of perceived coping ability and to test whether it moderates the relationships between workplace victimization and symptoms of burnout in samples of employees from high-risk occupations.	To explore organizational climate and culture factors that might mitigate consequences of client-initiated violence and hostility against police officers by predicting perceived coping ability with future workplace violence, fear of future violence, or depersonalization.
Methodology / Research Design	Cross-sectional survey	Cross-sectional survey	Longitudinal and cross-sectional surveys	Cross-sectional survey
Sample	330 frontline staff at 23 job centers and 4 social security offices in the German-speaking part of Switzerland (medium-risk occupational groups)	596 operational police officers with various lengths of service from two Swiss police corps, serving populations of approximately 370’000 (corps A) and 260’000 (corps B)	Sample 1: 596 experienced officers, see Study II; Sample 2: 112 members of six police academy classes and later police novices of an urban police force in Switzerland, serving a population of approximately 390’000 and considerable amounts of commuters (work or leisure)	Sample 1: 596 experienced officers, see Study II; Sample 2: 112 police novices with one year of patrol experience (after graduating from the two-year police academy), see Study III, sample 2, t3
Response rate	68%	61% Corps A: 334 of 664 = 50% Corps B: 262 of 310 = 85%	Sample 1: 61%, see Study II Sample 2: Time 1: 145 of 145 = 100% Time 2: 140 of 140 = 100% Time 3: 112 of 137 = 82%	Sample 1: 61%, see Study II Sample 2: 82%, see Study III, t3

	Study I	**Study II**	**Study III**	**Study IV**
Distribution	90% job center staff 10% social security office staff 58% women 41% men 1% gender unknown	56% corps A 44% corps B 18% women 82% men	Sample 1: see Study II Sample 2: 22% women, 78% men	See Studies II & III
Data collection	2004; questionnaire (paper & pencil), distributed by employer, returned by mail to author	2010 (A: Summer; B:Autumn); on-line questionnaire, link set up by author, distributed via employer	2006 – 2010, at 18 different points in time Time 1: 2006 – 2007 Time 2: 2007 – 2009 Time 3: 2008 – 2010; questionnaire (paper & pencil), at t1/t2 distributed and collected by author in class-setting, at t3 distributed by internal mail by author, returned by mail to author	Sample 1: 2010 Sample 2: 2008 - 2010
Data Analyses	Structural equation modeling (AMOS 7.0); 9 latent variables (26 indicators); two-step approach: 1) estimation of measurement model; 2) estimation of 3 structural models	Structural equation modeling (AMOS 22.0); 9 latent variables (20 indicators); two-step approach: 1) estimation of measurement model; 2) estimation of 4 structural models	Moderated hierarchical regression analyses	Hierarchical regression analyses
Publication / Status	Paper I Journal of Occupational Health Psychology, 16 (2), 217-229.	Paper II submitted		Paper III to be submitted

5 Study I: The Test of an Extended Model of the Consequences of Client-Initiated Workplace Violence

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Consequences of Client-Initiated Workplace Violence: The Role of Fear and Perceived Prevention

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The authors suggested and tested a model of the consequences of client-initiated workplace violence, introducing perceived prevention of violence and perceived coping ability as factors that reduce fear of future violence and mitigate negative personal and organizational consequences. Survey data from 330 frontline staff from job centers and social security offices were analyzed using structural equation modeling. The data supported the model and confirmed the central role of the fear of violence with regard to outcomes such as psychological and physical well-being or irritability. Results point further to perceived prevention of violence as an important factor that influences fear levels in different ways, predicts turnover intentions, and should therefore be considered when managers aim to address the consequences of client-initiated violence and threats.

Keywords: client-initiated violence and threats at work; fear of violence; perceived prevention of violence; perceived coping ability; structural equation modeling (SEM)

5.1 Introduction

Violence at work has been increasingly recognized as a serious health concern (e.g., Runyan, Zakocs, & Zwerling, 2000; Schat & Kelloway, 2003), since it has been associated with negative personal and organizational outcomes (see Glomb & Cortina, 2006; Hogh & Viitasara, 2005; Schat & Kelloway, 2005). Previous research has shown that client-initiated and coworker-initiated workplace aggression and violence have differential impacts on employees (Hershcovis & Barling, 2010; LeBlanc & Kelloway, 2002). It is therefore important to distinguish between the sources of workplace violence when researching its consequences. Perpetrators can either be persons with criminal intent, customers or clients, current or former employees, or personal acquaintances of the victims (see California Occupational Safety & Health Administration, 1995; Peek-Asa, Howard, Vargas, & Kraus, 1997). In contrast to popular belief, workplace violence is most often initiated by a person outside of the organization, and about 60% of nonfatal assaults at work are initiated by clients (LeBlanc & Barling, 2004). In this paper, we focus on client-initiated violence, in particular, assaults on, and threats of harm against, civil servants.

Empirical research on *how* the experience of client-initiated violence and threats of violence might lead to negative consequences is still scarce. Major contributions have been made by Kelloway and colleagues (Barling, Rogers, & Kelloway, 2001; LeBlanc & Kelloway, 2002; Rogers & Kelloway, 1997; Schat & Kelloway, 2000), who developed a model which suggests that previous experiences of workplace violence increase the perception of the likelihood of future violence and thus raise the fear of future violence, and that it is the fear of future violence that mediates between experiences and long-term negative consequences. The first purpose of our study is to replicate this basic model and, in particular, to confirm the importance of fear of future violence in this process with a sample of professionals that do have moderate levels of exposure to workplace violence and threats of violence. In addition, we add a new perspective and advance the understanding of the long-term outcomes of workplace violence by introducing two not yet studied variables that influence fear of future violence. Criminological research on fear of crime (see Hale, 1996) suggests that fear of future victimization is not only influenced by experiences or perceived risk, but also depends on perceived protection and the seriousness of consequences—or in case of workplace violence, on perceived prevention and the perceived ability that one can cope with the experience of violence or threats. A second goal of the study is, thus, to test an extended model that includes perceived organizational prevention of violence and perceived coping ability as factors that relate to the concept of fear of violence (see Figure 7). We present a test of the model with data from social welfare service providers in unemployment offices and welfare eligibility offices.

5.1.1 Workplace Violence and Its Consequences

Workplace violence became a topic of broader interest for research in the early 1980s (Bulatao & VandenBos, 1996). After an initial research focus on the extent of workplace homicides and their risk factors, research was soon extended to nonfatal violence. In the 1990s, causes and costs of workplace violence and interventions to prevent incidents or to reduce their negative consequences were investigated (see Barling, 1996; Flannery, 1996; Folger & Baron, 1996; Nicoletti & Spooner, 1996). Whereas early research had concentrated mostly on employees who had experienced massive violence, later researchers adopted a wider definition of workplace violence to also include threats of violent assaults (e.g., Jenkins, 1996) and vicariously experienced violence (e.g., Rogers & Kelloway, 1997). Budd, Arvey, and Lawless (1996) showed that respondents who had been physically attacked or threatened, reported increased worries about future attacks, and were more likely to consider bringing tear gas or even a gun to work for protection. A considerable number of respondents indicated that *fear* of violence (not actual victimization) had caused them mental or physical distress or had made them consider changing jobs. Hurrell, Worthington, & Driscoll (1996) found that assaulted employees reported significantly higher symptom scores for depression and less job satisfaction than nonassaulted respondents, and assaulted men reported lower self-esteem. Lanza (1996) described emotional, social, biophysiological, and cognitive impairments of victimized nurses. Other studies showed relationships between workplace violence and burnout (Winstanley & Whittington, 2002). Negative effects have been found even up to five years after the experience of violence at work (Hogh, Borg, & Mikkelsen, 2003). Most of these authors considered the negative outcomes as direct effects of the victimization experience itself. Investigations into factors influencing reactions to workplace violence have only emerged recently.

5.1.2 Models of the Consequences of Workplace Violence

Seminal research investigating relationships among the experience of workplace violence, outcomes, and mediating or moderating factors, has been done by Kelloway and colleagues (Barling, Rogers, & Kelloway, 2001; LeBlanc & Kelloway, 2002; Rogers & Kelloway, 1997; Schat & Kelloway, 2000, 2003), who used the traditional work stress framework (Barling, 1996; Pratt & Barling, 1988) to study the topic. This framework distinguishes among objective workplace events ("stressors"), the individual's subjective experience of these events ("psychological stress"), and the individual's psychological and/or physiological response ("strain"). The framework suggests that it is the psychological stress that mediates between objective stressors and strain.

Rogers' and Kelloway's (1997) original model starts with exposure to workplace violence as a stressor that leads to negative outcomes. It further suggests that "fear of future violence" mediates the relationship between the experience of violence and negative consequences. Fear is considered as an important construct in explaining the relationship between the experience of workplace violence and negative outcomes (Barling, 1996). The original model has received empirical support in a study on bank tellers by Rogers and Kelloway, and was replicated in a study including care takers (Schat & Kelloway, 2000), as well as in a study on in-home workers' experience of sexual harassment and violence (Barling et al., 2001).

Later, LeBlanc and Kelloway (2002) introduced the assessment of the likelihood of future violence as a factor in the chain between victimization experiences and outcomes, leading to what we call the basic model. They found that public violence and aggression predicted perceptions of the likelihood of future violence, which in turn predicted fear of future violence. However, in contrast to earlier findings, fear did not predict outcomes, such as emotional and psychosomatic well-being or turnover intentions. In sum, whereas the original model is well established, the whole chain of the basic model—relating experience of workplace violence to the perceived likelihood of future violence, to fear, to outcomes—lacks solid empirical support.

The original model was extended in several ways. Based on the findings of the job demand-control-support framework of stress (e.g., de Lange, Taris, Kompier, Houtman, & Bongers, 2003; van der Doef & Maes, 1999), Schat and Kelloway (2000) included “perceived control” in their study. Their results showed that perceived control (i.e., predictability of events, understanding of peoples’ behavior, ability to influence events at work) was influenced by specific employee training and predicted fear of future violence as well as emotional well-being. However, control moderated neither the relationship between experienced violence and fear, nor the one between fear and strain. In another study, Schat and Kelloway (2003) examined the role of organizational support and found a buffering effect of instrumental support after an incident on emotional well-being, somatic health, and job-related affect. Informational support, operationalized as whether respondents had received training on how to deal with aggressive or threatening events, was found to be a significant moderator of the relationship between the experience of workplace violence and emotional well-being. However, neither type of support was found to significantly moderate the relationship between victimization experience and fear.

Together, these studies support the central role of fear of future violence with regard to strain. They also examined several influences on the fear of future violence. There might, however, be other important influences on fear of future violence worth investigating: If fear of violent victimization at work is considered as a specific form of fear of crime, criminological research might contribute to the topic and is therefore considered in our extended model.

5.1.3 The Current Study: A Model Including Perceived Prevention and Coping Ability

The purpose of the present study is to propose and test an extended model of the consequences of workplace violence, illustrated in Figure 1. We start with the basic model of Kelloway and colleagues and include two additional variables derived from criminological research on the fear of crime. Killias (1991) suggested that fear of crime depends upon three key factors: “exposure to non-negligible risk; loss of control, that is, lack of effective defense, protective measures and/or possibilities of escape; anticipation of serious consequences” (p. 619). Exposure to workplace violence and a risk assessment component are already included in the basic model. In an organizational context, the lack of effective defense, protective measures and/or possibilities of escape, can be addressed by adequate preventive measures. The anticipation of serious consequences depends in part on a person's perception of their own coping abilities. We thus investigate whether perceived organizational prevention and perceived coping ability directly or indirectly influence fear levels. Below, we describe the model.

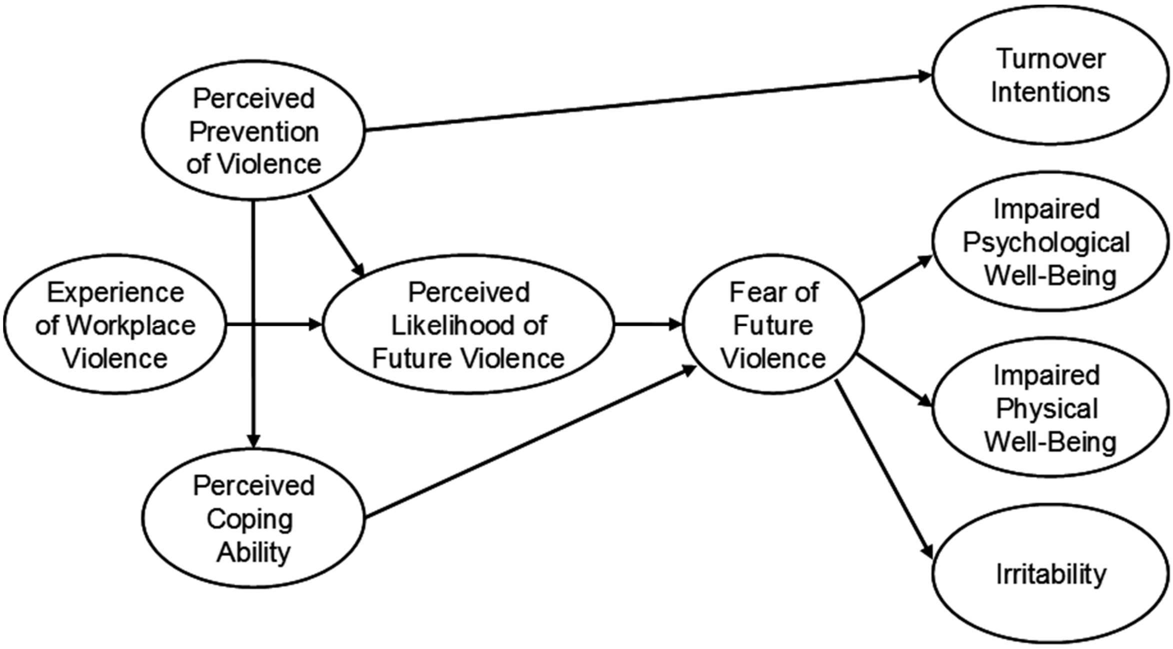
Perceived Prevention of Violence
Turnover Intentions
Impaired Psychological Well-Being
Experience of Workplace Violence
Perceived Likelihood of Future Violence
Fear of Future Violence
Impaired Physical Well-Being
Perceived Coping Ability
Irritability

Figure 7: Extended model of the consequences of workplace violence

5.1.3.1 The Basic Model

In accordance with Jenkins (1996) and Rogers and Kelloway (1997), we define *workplace violence* as physical assaults and threats of assault against persons at work or on duty. Verbal threats have been found to be at least as distressing for staff as minor physical assaults (e.g., Walsh & Clarke, 2003). We also include vicariously experienced violence as exposure to workplace violence if a person becomes an eyewitness of assaults or threats toward a colleague. In our study, we concentrate on workplace violence coming from one source, namely clients. In accordance with previous research (LeBlanc & Kelloway, 2002), we expect that personally or vicariously experienced workplace violence predict *fear of future violence*, and that this link is mediated by the *perceived likelihood of future violence*, and we expect that fear of future violence will influence indicators of *strain*.

5.1.3.2 Perceived Prevention of Violence

Although the prevention of workplace violence—or the lack of it—is a topic in the literature (e.g., Kelley & Mullen, 2006; Nicoletti & Spooner, 1996; Peek-Asa, Runyan, & Zwerling, 2001; Runyan, 2001), its role in the process of fear of workplace violence has received limited attention. As mentioned above, Schat and Kelloway (2000) reported that violence prevention training enhanced perceived control. Sinclair, Martin, and Croll (2002) showed small effects of two preventive measures (security staff and metal detectors) on threat appraisals of teachers and other school employees. Their measure of threat appraisal, however, reflected feelings about own personal safety or the students' safety rather than fear of victimization. In a more recent study, Spector, Coulter, Stockwell, and Matz (2007) examined the relationship of perceived violence climate, perceptions of danger at work and general anxiety (but not fear of violence in a narrower sense). Their results show that the perceived violence climate indeed plays an important role for general anxiety and also influences other strain variables. Based on Runyan (2001), we adopt a broad concept of violence prevention and define perceived prevention of violence as an employee's subjective estimation to what extent the employer cares for appropriate strategies with regard to workplace violence. Such strategies can be directed at preventing assaults, at reducing injuries associated with assaults, and at alleviating the long-term consequences. We hypothesize that higher levels of perceived prevention reduce the perceived likelihood of future violence, which in turn reduces fear of violence.

5.1.3.3 Coping Ability

In the context of fear of crime, vulnerability is closely connected to the perceived seriousness of the consequences of events (e.g., Hale, 1996; Killias & Clerici, 2000). According to Bandura (1983), people will feel anxious in the face of difficult situations and expect harmful consequences if they doubt their ability to cope effectively. Moreover, as Lazarus (1981/1998) states, coping is not only about changing the situation for the better, but also about being able to deal with the own stress-related emotions in a way that they do not overwhelm the individual and do not damage or devastate morale and social functioning. The question is, therefore, whether individuals perceive themselves able to cope with the physical and, particularly, the psychological consequences of a client-initiated violence experience or threats of violence, or whether they are worried that such an incident might shatter their beliefs and confidence too much to recover completely. We assume that the lower the perceived own coping ability, the more likely a person is to experience fear of future violence.

In addition, we hypothesize that the perception of adequate preventive measures enhances the perceived coping ability through appraisal processes. Individuals faced with a stressor—in our case anticipated encounters with violent clients— evaluate the situation with regard to the potential damage it contains and assess their coping possibilities (Lazarus, 1981/1998). Thus, if individuals judge the preventive measures at their workplace as appropriate, they might rely on their own skills for handling aggressive clients, on the immediate help from colleagues in critical situations, as well as on support with regard to coping processes after the event. By this, people are likely to feel less vulnerable, as the threat posed by possible future client-initiated violence and thus anxiety—the according “stress emotion” (Lazarus, 1999)—will be reduced.

The level of perceived coping ability does not necessarily reflect the actual coping skills or efficacy of an individual: it only indicates the person’s belief about their potential for handling this specific kind of stressor (see Jex, Bliese, Buzzell, & Primeau, 2001). If employees actually experience workplace violence, they learn about their coping efficacy and the reactions of others (as victims of crime in general, see Gabriel & Greve, 2003). If victimized people experience a loss of personal control—which might be particularly intense and belief-shattering for people who previously believed in their ability to control events at work (Barling, 1996)—and/or if the reaction of coworkers and supervisors is experienced as inappropriate and unsupportive, such incidents are likely to reduce victims’ perceived coping ability and, thus, increase fear of future violence. Successful coping with stressors, on the other hand, can lead to increased self-confidence (e.g., Semmer, McGrath, & Beehr, 2005) and thus to a better sense of one’s own coping ability. This view is supported by Edgar, O’Donnell, and Martin (2003), who examined violence among prisoners and found that, although recent victimization tended to reduce feelings of safety, many of those who had been assaulted had low levels of fear of assault—as if they had learned that they could cope. In sum, victimization experiences can lead to a full range of different outcomes: they can be devastating, but they may also inure some victims by increasing their perceived coping ability. Based on these considerations, we did not expect exposure to client-initiated violence (without any information about the success of the coping process) to directly influence personal or organizational consequences.

5.1.3.4 Consequences

With regard to the consequences, we chose to investigate some classic occupational stress outcomes suitable for self-report measures, namely symptoms of impaired psychological and physical well-being as indicators of psychological and physical strain, and turnover intentions as an indicator of organizationally relevant behavioral tendencies (e.g., Jex & Crossley, 2005). Irritability, an aspect of the construct of irritation introduced by Mohr (1986), was chosen as a fourth outcome measure because it is not only an indicator of mental strain, but also a precursor of more serious mental impairments (e.g., Mohr, Müller, Rigotti, Aycan, & Tschan, 2006). A change in symptoms, such as when a person reacts in a more and more grumpy and irritated fashion, can impair support by significant others and thus lead to a vicious circle (Mohr, Rigotti, & Müller, 2005), but it can also be easily detected by the persons themselves and by coworkers or supervisors and thus serve as an early warning signal (Dormann & Zapf, 2002).

We expect fear of future violence to have a negative impact on psychological and physical well-being, as well as on irritability. Although intense fear is a legitimate reason to change a job, we do not expect fear to significantly predict turnover intentions in our sample. We assume that employees who suffer from fear enough to consider leaving their job will often leave rapidly. Thus, there might be a selection bias similar to a healthy worker effect (which refers to the underestimation of job-related morbidity in samples of workers due to the fact that persons with severe health problems cannot keep their jobs, e.g., McMichael, 1976). This might lead to an underestimation of the relationship between fear and intent to turnover in our model, because only few people with fear-related turnover intentions will remain in a sample at any particular time. In addition, if the exposure to threats and violence is not too high, employees may have reasons to stay in spite of their fear, for example because they perceive restricted alternatives or if they appreciate other aspects of their job too much. In this case, employees decide to stay in their job despite being fearful and thus, by definition, do not intend to turnover. However, we expect a negative relationship between perceived prevention of violence and turnover intentions: If employees feel that their employer neglects the problem of violence and their need for protection, they might react with turnover intentions. Efforts to prevent workplace violence can be seen as an employer's expression of care about his employees' well-being, which is one of the two facets of the definition of perceived organizational support (POS, Eisenberger, Huntington, Hutchison, & Sowa, 1986), and POS was found to be related to the desire to remain with the organization (see Rhoades & Eisenberger, 2002).

5.2 Method

5.2.1 Participants

Participants were frontline staff at 23 job centers (obligatory unemployment counseling) and 4 social security offices in the German-speaking part of Switzerland. Of the 483 questionnaires distributed, 330 were returned for a response rate of 68%. Ninety percent of the responses were from job center staff; 10% were from social security officers. Fifty-eight percent of the participants were women and 41% were men (five persons did not report demographic data). The participants were asked to indicate their age group and organizational tenure group, rather than to give their exact age or years of tenure. The median age of respondents was between 35 and 44 years, and the median organizational tenure was between 1 and 3 years. One half of the participants had a diploma from a technical college of higher education or a university degree. One case with missing data was deleted, leaving a final sample of $N = 329$.

5.2.2 Procedure

The heads of all 18 cantonal Offices for Economy and Work in the German-speaking part of Switzerland as well as the managers of the Social Security offices of 17 cities were informed about the purpose of the study and asked for their support. To encourage participation, we suggested that they allow their staff to fill in the questionnaire during working hours, and promised not only a general report of results, but also specific institution-level feedback. Six of the 18 heads of Offices for Economy and Work provided 23 job center managers who were willing to either actively motivate their employees to participate or to distribute the study materials, and four Social Security office managers agreed to take part in the study. Managers who agreed to participate were either sent survey packages for all employees, or were provided with the survey material by e-mail. Participation was voluntary and anonymous; respondents returned their questionnaires directly to the first author.

5.2.3 Measures

Seven of the nine measures used in this study are short forms or adaptations of existing measures with established psychometric properties; two were created for this study. English scales were translated into German and translated back by native speakers.

Experience of client-initiated violence at work. Drawing from the measures of Rogers and Kelloway (1997), three indicators, namely experience of physical violence, threats of violence, and vicarious violence, reflected experienced client-initiated workplace violence. A five-item index covering different types of *physically violent behaviors* was used to assess the frequency of respondents' personal experience of violence by clients (e.g., "Have you been hit, kicked, grabbed, shoved, or pushed by anyone while you've been at work?"). Threats with a weapon were included in this index due to the imminent danger to life or health. Internal consistency was $\alpha = .63$. *Threats of violence* were measured with three items that asked for experienced verbal threats as well as threatening behavior, such as the destruction of personal or workplace property. Internal consistency was $\alpha = .65$. *Vicarious experience of workplace violence* was assessed by two items asking if the respondent had witnessed assaults or threats to coworkers or supervisors; the intercorrelation between the two items was $r = .60$ ($p < .01$). The answer format was a 4-point scale, ranging from 0 (*never*), 1 (*once*), 2 (*two-three times*), to 3 (*four or more times*). Cronbach's alpha for the combined scale was $\alpha = .73$.

Perceived coping ability. Two items developed for this study assessed the perceived coping ability of respondents: "I suppose that threats or violence from a customer/ client would shake me profoundly" (reverse coded) and "I consider myself to be able to cope well after an assault by a customer/client”. The response scale for these items ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). The two items reflect different aspects of coping; the intercorrelation was $r = .43$ ($p < .01$).

Perceived prevention of violence. Based on considerations of Runyan (2001), a four-item scale was developed for this study to measure the subjective assessment of preventive measures at the respondents’ workplaces: “My employer takes the necessary measures to prevent violence in the workplace”; “More safety precautions or preventive measures are needed urgently“ (reverse coded); “It seems that something serious must happen before sufficient safety is provided“ (reverse coded); and “In our organization we are prepared to react to incidents of workplace violence in the best possible way and thus to reduce harmful consequences”. Items were rated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Internal consistency of the scale was $\alpha = .82$.

Fear of future violence. A three-item short form, adapted from a scale by Rogers and Kelloway (1997), was used to assess respondents’ fear of future violence at work. In each item, two or three kinds of assaults or threats covered in the experience measures were concentrated (e.g., “I’m afraid of being hit, kicked, grabbed, shoved, pushed, spat on, bitten, or something being thrown at me while at work”, “I’m afraid of being threatened or injured with a weapon while at work”). Items were rated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Internal consistency was $\alpha = .88$.

Perceived likelihood of future violence. Similar to LeBlanc and Kelloway (2002), we created a three-item scale with items that corresponded to the fear of future violence scale. In our study, the likelihood of future violence (e.g., “Likelihood of being hit, kicked, grabbed, shoved, pushed, spat on, bitten, or something being thrown at me while at work in the next year”, “Likelihood of being threatened (with words or gestures) with any of the above examples of physical violence while at work in the next year”) was rated on an 11-point scale ranging from 0 (*zero*) to 10 (*almost 100%*), in 10% increments. The internal consistency of the scale was $\alpha = .74$.

Impaired physical well-being. Three items from the psychosomatic symptoms list (Mohr, 1986) covering frequent physical discomforts, namely headaches, back pain, and gastrointestinal problems, were used to indicate impaired physical well-being. The items were rated on a 4-point scale ranging from 1 (*never*), 2 (*every few weeks*), 3 (*every few days*), to 4 (*almost daily*). Owing to the fact that many people are prone to experience one specific kind of physical symptom rather than all three types, internal consistency was low (α = .55).

Impaired psychological well-being. Four items from the psychosomatic symptoms list (Mohr, 1986) covering psychological symptoms, namely feelings of stress and depression, concentration difficulties, and sleeping problems, were used to indicate impaired psychological well-being. The items were rated on a 4-point scale ranging from 1 (*never*), 2 (*every few weeks*), 3 (*every few days*), to 4 (*almost daily*); internal consistency was α = .74.

Irritability. From Mohr's (1986) eight-item irritation scale we chose the two items with the highest loadings on the "emotional irritation" factor (Mohr, Rigotti, & Müller, 2005). The items reflect negative effects on the mood of respondents ("I anger quickly", "I get irritated easily, although I don't want this to happen"). The response scale ranged from 1 (*strongly disagree*) to 7 (*strongly agree*); the intercorrelation between the two items was r = .73 (p < .01).

Turnover intentions. Two items based on Bluedorn (1982) served to measure intent to quit ("If certain things at work do not change soon, I will look for a different job" and "Recently, I have often thought about leaving the organization"). Response options ranged from 1 (*strongly disagree*) to 7 (*strongly agree*), the intercorrelation between the two items was r = .60 (p < .01).

5.3 Results

The examination of the data prior to the model tests revealed several violations of the assumption of normality. The distribution of the experience of violence at work, in particular, showed a positive skewness (79% of the participants reported no experiences of physical violence, 42% no experiences of threats of violence, and 43% had never witnessed such incidents). This was not unexpected. The goodness-of-fit indices which we consider as indices of choice—the standardized root-mean-square residual

(SRMR), the comparative fit index (CFI), and the root-mean-square error of approximation (RMSEA)—have been found to be relatively insensitive to distribution (Hu & Bentler, 1998; to allow for comparisons, we also report the goodness-of-fit index GFI and the normed fit index NFI). The fact that several of the correlations between study variables were very small and nonsignificant indicates a minimal effect of common method variance (Lindell & Whitney, 2001). Descriptive statistics and intercorrelations for all study variables are presented in Table 4.

All the estimates were produced using AMOS 7.0 (Arbuckle, 2006) and the estimation method of maximum likelihood. The measurement model, comprising nine latent variables and 26 indicators, provided a good fit to the data, SRMR = .05, CFI = .95, GFI = .91, NFI = .88, RMSEA = .04 (confidence interval .03–.05, *p* value for closeness of fit = .99). The proposed extended model of the consequences of workplace violence, presented in Figure 7, provided an adequate fit to the data. While the low value of RMSEA (.04) in particular is indicative of close fit, the other fit indices (e.g., SRMR = .06; CFI = .95) confirm a fairly good fit between the hypothesized model and the observed data. A more constrained model, in which paths from the latent variables "perceived prevention of violence" and "perceived coping ability" were constrained to zero so that only the paths of the basic model remained, provided a significantly poorer fit to the data than the proposed model, $\Delta\chi^2$ (3, *N* = 329) = 103.96, $p < .001$. A less constrained model, in which direct paths from the experience of violence to the four outcome variables were allowed to be estimated in addition to the paths specified in the proposed model, provided very similar fit values as the proposed model, $\Delta\chi^2$ (4, *N* = 329) = 4.24, *ns*. The additional paths were all nonsignificant ($p > .05$). Table 5 presents an overview on fit indices for all three structural models under consideration. To sum up, the proposed model displayed a better fit to the data than the more constrained model, and it was more parsimonious than the less constrained model while providing similar fit values. It was, therefore, retained for further analyses.

Table 4: Descriptive statistics and inter-correlations of study variables

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9
1. Experience of Violence	0.25	0.29	–								
2. Perceived Prevention	5.02	1.41	-.10	–							
3. Perceived Coping Ability	4.43	1.31	.10	.15**	–						
4. Likelihood of future violence	1.04	1.26	.41**	-.32**	-.03	–					
5. Fear of future violence	1.89	1.23	.22**	-.30**	-.28**	.38**	–				
6. Turnover intentions	1.85	1.21	.10	-.30**	-.04	.13*	.09	–			
7. Impaired physical well-being	1.64	0.53	.08	-.16**	-.10	.04	.24**	.18**	–		
8. Impaired psychological well-being	1.68	0.50	.04	-.16**	-.26**	.13*	.27**	.33**	.49**	–	
9. Irritability	2.49	1.18	.10	-.18**	-.22**	.11	.24**	.25**	.24**	.38**	–

* $p < .05$ ** $p < .01$

Table 5: Fit indices for structural models

Model	SRMR	CFI	RMSEA	CI for RMSEA	*p* close	GFI	NFI
Proposed model	.058	.946	.042	.034-.049	.972	.906	.866
More constrained model	.102	.913	.053	.046-.059	.244	.888	.835
Less constrained model	.057	.946	.042	.034-.049	.967	.907	.877

Note. SRMR = standardized root-mean-square residual; CFI = comparative fit index; RMSEA = root-mean-square error of approximation; CI for RMSEA = 90% confidence interval around the RMSEA value; *p* close = *p* value for closeness of fit; GFI = goodness-of-fit index; NFI = normed fit index

It should be mentioned that in addition to the substantive paths specified, all three models allowed residual correlations among the four outcome variables (i.e., turnover intentions, impaired physical and psychological well-being, and irritability) because we assume that other, not measured aspects at work (e.g., time pressure) influence all of the outcome variables. Standardized parameter estimates for the proposed model are presented in Figure 8.

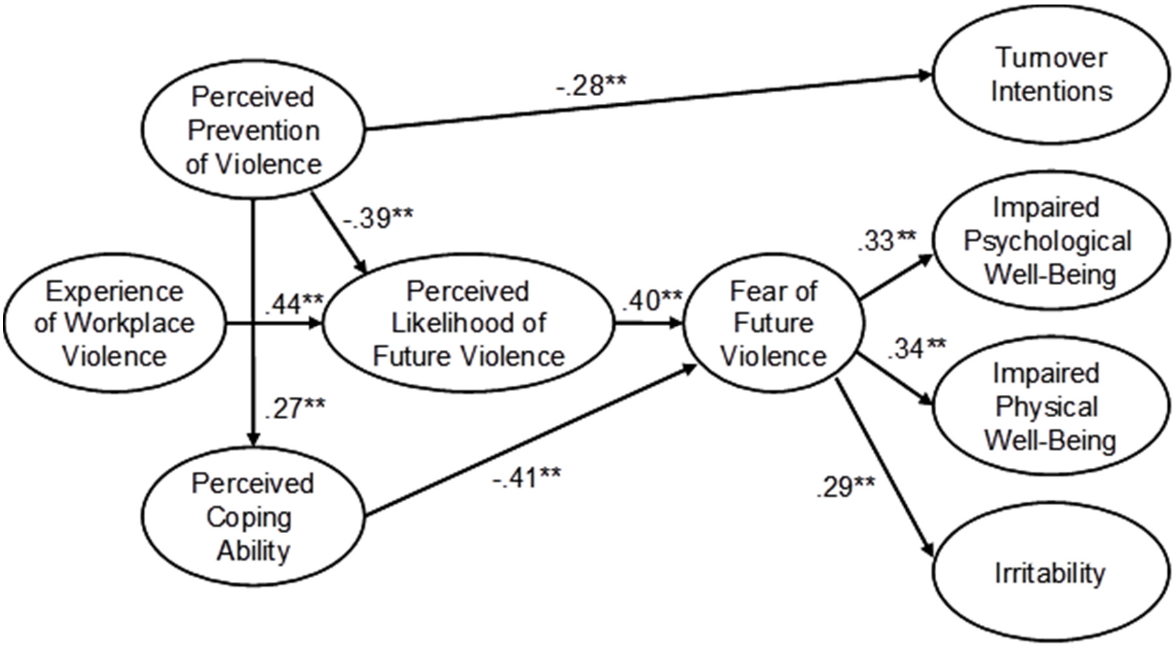
Perceived Prevention of Violence
-.28**
Turnover Intentions
-.39**
Impaired Psychological Well-Being
.33**
Experience of Workplace Violence
.44**
Perceived Likelihood of Future Violence
.40**
Fear of Future Violence
.34**
Impaired Physical Well-Being
.27**
Perceived Coping Ability
-.41**
.29**
Irritability

Figure 8: Standardized parameter estimates for the extended model of the consequences of workplace violence; **p < .01

The experience of workplace violence predicted the perceived likelihood of violence (β = .44, *p* < .01), which in turn predicted fear of future violence (β = .40, *p* < .01), which predicted impaired psychological well-being (β = .33, *p* < .01), impaired physical well-being (β = .34, *p* < .01), and irritability (β = .29, *p* < .01). Perceived prevention of violence predicted the perceived likelihood of violence (β = –.39, *p* < .01), perceived coping ability (β = .27, *p* < .01), as well as turnover intentions (β = –.28, *p* < .01). Perceived coping ability predicted fear of future violence (β = –.41, *p* < .01). All model parameters were significant in the expected direction. To examine our hypothesis that we do not find a substantial relationship between fear and turnover intentions, we subsequently introduced such a path into the model and found our assumption confirmed (β = .00, *ns*.). To sum up, all our hypotheses were supported.[3]

5.4 Discussion

The purpose of this study was to propose and evaluate a model of the consequences of workplace violence that extends the basic model developed by Kelloway and colleagues (Barling et al., 2001; LeBlanc & Kelloway, 2002; Rogers & Kelloway, 1997; Schat & Kelloway, 2000). The model contains relationships based on findings of Kelloway and colleagues, particularly that exposure to workplace violence increases the perceived likelihood of future violence which increases the fear of future violence, and that fear is related to negative outcomes. In addition, our model introduces two new variables—perceived prevention of violence and perceived coping ability—that were suggested to (indirectly or directly) influence fear of violence, the central concept with respect to consequences of workplace violence. The results of this study provide strong support for the proposed model.

Unlike Rogers and Kelloway (1997) and LeBlanc and Kelloway (2002), we did not expect to find a significant link between fear of future violence and turnover intentions in our sample. This was not because we doubt that fear of client-initiated violence is a good reason to leave a job, but rather because we expected a nonsignificant relationship owing to a sample bias similar to the healthy worker effect (McMichael, 1976). In the current case, we assumed an underestimation of fear-related turnover intentions because fearful employees either leave their job quickly (leaving only a small number of such people in a sample), or have reasons to stay in the job despite of their fear and do, by definition, not intend to quit. These aspects might also explain the mixed results of previous research with regards to turnover intentions. Our data showed that fear and turnover intentions were not significantly correlated. Intent to quit, however, was negatively related to perceived prevention, as suggested in our model.

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[3] If the 32 participants from the social security offices were omitted and the sample restricted to job center staff (N = 298), the results basically remained the same with respect to fit indices for the extended model (SRMR = .064, CFI = .923, GFI = .887, NFI = .838, RMSEA = .050 (.043–.057), $p$close = .489,) as well as with respect to the parameter estimates.

The present findings contribute to the research on workplace violence in two ways. First, our study replicates some key findings of Kelloway and colleagues. In particular, the whole chain of paths suggested in the basic model is confirmed for the first time, and this is done with an additional occupational group and in a European context. Second, we extend previous models by introducing two new and relevant factors. The choice of these factors was inspired by criminological research on fear of crime: Unlike earlier researchers, who investigated factors that are known to reduce the impact of work stress in general, we aimed at finding factors that specifically affect *fear* of violence and, therefore, negative consequences of violence at work. Our findings indicate that violence prevention and coping ability are organizational and personal resources which reduce fear of workplace violence in medium-risk occupational settings, and that their recognition might be a fruitful approach with practical implications.

5.4.1 Implications for Practice and Research

In our study, we considered three dimensions of workplace violence, namely physical violence, threats of violence, and being a witness of such events. A considerable number of participants had, fortunately, not experienced such victimization by the time of the data collection. We could have included experiences of verbally aggressive client behavior, such as being shouted at or insulted, as a viable option to increase the proportion of victimized participants. We were, however, interested in actual violence and threats of violence at work and thus focused on these kinds of experiences. Also, we are convinced that the fact that only a minority of employees experiences physical attacks— but that the fear of such events is relevant for many more—mirrors the reality in many work environments that are considered to be of medium, but not of high-risk, with regard to client-initiated violence.

This consideration leads directly to the practical implications of the results of our study. While employees in high-risk occupations are prepared and trained to face dangerous encounters with clients from the very beginning of their employment (e.g., law enforcement personnel), managers in occupational fields with lower but still relevant risk have to recognize the need for adequate preventive measures, as well as acknowledge the fact that *fear* of violence can have deleterious consequences — often even more than actual experiences of workplace violence, at least as long as these are not of a too severe nature and the coping process of the victimized person is successful (unlike fear, exposure to violence did not directly predict outcomes in our sample). Our findings suggest that perceived prevention reduces fear-levels and other unwanted consequences. In practice, we repeatedly encountered managers who either presumed that there were not enough severe incidents of workplace violence to justify investments in preventive measures, or who doubted the effectiveness of certain preventive measures in emergency situations. Of course, if a client suddenly attacks their consultant, an alarm button might be out of reach. But our results point to the fact that prevention is not only about avoiding incidents and injuries, but also about reducing fear and its detrimental effect on employees. Even a preventive device that may fail in the case of an emergency serves a purpose if it improves employees' sense of security at work and enables more relaxed contacts with clients. It is, therefore, vital that managers inform their employees about any existing measures and crisis plans or, ideally, involve them actively in a transparent risk-management approach. Thorough and well communicated measures to prevent violence or to reduce its physiological and psychological impact do more than serve their aim in an emergency situation: they also show the employer's concern for the safety of his employees, and they reduce fear—and thus have a beneficial impact 365 days a year.

With regard to future research, our findings suggest that longitudinal designs should be employed to evaluate not only the effectiveness of preventive strategies in reducing incidents of workplace violence, but also their usefulness for reducing fear levels. It is not unlikely that fearful employees differ from more relaxed colleagues with respect to how they handle clients, which might lead to a vicious circle of violence or threats and fear.

A successful coping process after an event is likely to increase a victim's perceived coping ability, and therefore to decrease their vulnerability and consequent fear. If an incident is traumatic and the victim has severe problems in coping, this is likely to increase their fear of future violence. Factors which influence the success of coping processes and someone's perceived coping ability should, therefore, be investigated in the context of workplace violence.

The fact that, in our study, perceived prevention of violence significantly predicted turnover intentions, while exposure to violence and threats did not, indicates that an organization's efforts with regard to the protection of its employees could influence the latter's commitment. LeBlanc and Kelloway (2002) already discussed that the attribution of responsibility to the organization might influence affective commitment in cases of exposure to violence or aggression at work. We agree with this suggestion and assume that employees might see violence and threats from clients as "part of the job"—but only for incidents that cannot be prevented despite an organization's sincere efforts. Exposure to risk that is perceived as unnecessary, on the other hand, may be seen as unacceptable and as something for which the organization is to blame. Indeed, previous research by Semmer and Jacobshagen (2003) showed that exposure to unnecessary or illegitimate tasks is a stressor on its own. According to their theory, reactions to stressors depend on their "legitimacy": Social actions are particularly stressful if perceived as illegitimate, while stressors that are unavoidable are perceived as legitimate. When applied to our findings, one could assume that the risk of client-initiated violence is seen as legitimate, as long as the organization cares about adequate preventive measures, but as illegitimate if the organization disregards its employees' need for protection. In a similar vein, violence or threats from clients may be regarded as legitimate, whereas similar behavior from coworkers or supervisors is not. This could explain LeBlanc and Kelloway's finding that coworker aggression directly predicted personal and organizational outcomes whereas public aggression did not. Based on such considerations, we clearly do not expect our expanded model to work the same if the source of violence or aggression lies within the organization. These aspects seem worth further investigation.

5.4.2 Potential Limitations

This study has its limitations. First, the design of the study was cross-sectional and the results of structural equation modeling are based on correlational data. The findings should thus be verified by longitudinal research that allows valid inferences about causal influences. Second, all data came from self-report measures and thus carry a risk of inflated correlational relationships. However, the fact that the correlation matrix displays several minimal, nonsignificant correlations between study variables renders unlikely the influence of mono-method bias in this study. On the other hand, the rather high correlations between the outcome measures could indicate a bias based on so-called occasion or mood factors (Dormann & Zapf, 2002; Dwyer, 1983). Again, this points to the need of longitudinal studies. Most of our study variables are, by the very nature of their content, particularly suitable for self-report measures. Third, some measures could be improved: Due to restrictions regarding the length of the questionnaire, shortened versions of some scales were used. Exposure to violence, threats and vicarious violence as well as impaired physical well-being were measured by indices, rather than scales, and internal consistencies were relatively low (but in the case of exposure to violence, e.g., very similar to the original study of Rogers & Kelloway, 1997). We do report Cronbach's Alpha of these indices in accordance with earlier research in the field, but we consider the good fit of the measurement model as more important and do not assume implications for our model. Subsequent studies, however, should be planned in a way that treats exposure to workplace violence and physical well-being as formative constructs, which was not possible in our model due to identification problems. Fourth, while the proposed model provides a similar or even superior fit to the data than two other models considered, this does not rule out the possibility of further plausible models with equivalent or better fit to the data. In fact, as far as the model fit is considered, equivalent models (see MacCallum, Wegener, Uchino, & Fabrigar, 1993) do exist: One could, for example, assume directed paths between the outcome variables instead of residual correlations. Such influences between outcome variables were, however, not in the focus of our study. In addition, the existence of feedback loops should be studied with longitudinal data.

Moreover, it is important to recognize that the results may be restricted to employees with moderate levels of violence and threats from clients. Just one in five participants reported personal exposure to assaults from clients. It has to be tested to what extent the model can be generalized to high-risk occupations (e.g., law enforcement personnel). We would, for example, expect more frequent exposure to violence to predict turnover intentions. The generalizability of the results is further restricted due to the use of a sample from only two occupational groups, of which one was unfortunately too small to allow for a comparative design. Also, the present study addresses only client-initiated violence in particular settings (i.e., offices) and with a particular kind of professional relationship between staff and clients (i.e., advice paired with an examination of claims for social security or unemployment benefits). Nevertheless, some of the results present a replication of previous findings and are, therefore, likely to be externally valid. The new findings, on the other hand, are only a starting point and in need of replication across heterogeneous samples with different base rates of client-initiated violence.

5.4.3 Summary and Conclusion

We proposed and evaluated an extended model of the consequences of workplace violence. The results indicate that perceived prevention of violence and perceived coping ability influence fear of future client-initiated violence, which in turn predicts strain.

Acute fear in a dangerous situation is a natural and often helpful emotion. Constant fear of violent victimization at work, however, can have consequences similar or worse than actual exposure to violence or threats. Optimal preventive measures address and mitigate both health hazards. Researchers could support responsible employers by providing sound knowledge not only on factors that reduce client-initiated workplace violence, but also on aspects that lessen fear of victimization.

6 Study II/III: Alternative Models of the Consequences of Client-Initiated Workplace Violence in High-Risk Occupations, and the Buffering Role of Perceived Coping Ability

Submitted

Facing High Levels of Workplace Violence: Mediator and Moderator Effects on Victimization-Strain Relationships in Police Officers

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Police officers face high levels of violence and aggression at work, but earlier models of the consequences of workplace violence, which emphasize the importance of fear of future violence in the aftermath of victimization as direct cause of strain, have never been tested with this high-risk occupational group. In Study 1, we suggested and tested a structural model of the consequences of high levels of client-initiated violence and aggression. We compared it with a series of alternative models, which allowed to estimate the relative influences of exposure to violence and aggression, of fear of future violence, and of perceived coping ability on turnover intentions, well-being, irritability, and symptoms of burnout. Based on data from 596 frontline police officers, we demonstrated that the perceived likelihood and fear of future violence fully mediated the relationships between exposure to psychological aggression and outcomes, but they only partially mediated the relationships between exposure to violence and strains. Perceived coping ability was a predictor of similar or greater strength as fear. In Study 2, regression analyses based on longitudinal data from 111 police novices confirmed main effects of workplace victimization and of perceived coping ability on symptoms of burnout. Additionally, perceived coping ability buffered the effects of high levels of exposure to violence on emotional exhaustion, but not depersonalization. It did not moderate the relationships between exposure to psychological aggression and emotional exhaustion or depersonalization. Our results also support the notion of a vicious circle of victimization and depersonalization. Implications are discussed.

Keywords: workplace violence and aggression; perceived coping ability; fear of violence; burnout; police stress

6.1 Introduction

Among the many occupations in which employees have to face workplace violence, police work stands out. Police officers interact with frustrated or intoxicated individuals, handle weapons, and exercise security functions and physical control over others, all of which are job characteristics found to correlate particularly high with violence from the public (LeBlanc & Kelloway, 2002). Indeed, crime victimization surveys revealed that law enforcement personnel face up to fifteen times the average risk of exposure to nonfatal workplace violence (e.g., Harrell, 2011, Packham, 2011). To a certain degree, exposure to violence is considered as part of police work, experienced as role congruent (Perrott & Kelloway, 2006). This distinguishes police work from many other occupations, where violent victimization at work often comes as surprise. Previous research yielded contradictory results on whether violence is a significant stressor for police officers (Lennings, 1997), which might be related to the fact that the interplay of exposure to violence, outcomes, and mediating and moderating variables is poorly understood – a research gap that the current study wants to address.

Early research investigating exposure to workplace violence focused on the development of post-traumatic stress disorder as direct consequence (Tehrani, 2004). Newer models of the consequences of workplace violence address various personal and organizational outcomes, and they do not assume that exposure to violence is directly linked to strain, but emphasize the importance of fear of future violence in the aftermath of victimization as the most proximal cause of strain (e.g., Barling, Rogers, & Kelloway, 2001; Rogers & Kelloway, 1997; Schat & Kelloway, 2000), which is why we call them *"fear models"*. A more recent study based on such a fear model confirmed the mediating role of fear of future violence for a sample from a medium-risk occupational group, and it showed that the perceived ability to cope with exposure to future client-initiated violence influenced fear of future violence and was thus indirectly linked to strain (Mueller & Tschan, 2011). The question arises whether such fear models are also applicable for high-risk occupational groups, such as police officers. Based on a rationale outlined below, we suggest that for police officers, for whom the likelihood of exposure to future violence is very high, their confidence in their ability to cope with violent victimization may be a particularly important influence on personal and organizational outcome variables.

The purpose of the present research is to investigate whether earlier findings on the consequences of workplace violence—including the mediating role of fear of future violence—apply to police officers, an occupational group that faces particularly high levels of risk of violent encounters with and hostile reactions from citizens. Moreover, we want to explore the role of perceived coping ability with future violence, a variable that has been largely neglected in models of the consequences of workplace violence in general and has, to our knowledge, never been investigated with regard to victimization in police officers. In Study 1, we suggest and test a model of the consequences of client-initiated workplace violence in high-risk occupational groups. We compare the proposed model—which is based on earlier findings—with a series of alternative models, which allows to examine the mediational role of fear of future violence, and to estimate the relative influences of exposure to workplace violence and aggression, of fear, and of perceived coping ability on several outcome variables. In Study 2, we use longitudinal data to further explore the relationships between victimization, perceived coping ability, emotional exhaustion and depersonalization, and to test whether perceived coping ability moderates the relationships between victimization and symptoms of burnout.

6.1.1 Exposure to Workplace Violence and Aggression as Stressor for Police Officers

In accordance with previous researchers (e.g., Rogers & Kelloway, 1997, Schat & Kelloway, 2003), we conceptualize workplace violence as consisting of physical assault, threats of assault (e.g., threats with a weapon), and verbal threats of physical harm directed against persons in the course of, or as direct results of, their work. We define psychological aggression at work as verbal abuse and hostile behavior that is not accompanied by threats of violence or physical violence. Psychological aggression often precedes physical violence (e.g., in cases of domestic violence, Murphy & O'Leary, 1989, O'Leary & Woodin, 2009) and it has similar consequences (Sinclair, Martin, & Croll, 2002; Winstanley & Whittington, 2002). In some circumstances, verbal aggression can even have a stronger impact than minor physical aggression, because it might be experienced as more personal, more threatening, and less controllable than physical aggression (Gerberich et al., 2004; Walsh & Clarke, 2003). Our research is restricted to what the Californian Occupational Safety and Health Administration (1995) defined as type II workplace violence events, in which the perpetrators are recipients or objects of a service provided by the victims. We call such events *client-initiated* violence and aggression, as the term *public-initiated* violence is less specified regarding the relationship between the aggressor and the victim, and usually includes type I events, in which the perpetrator uses violence or threats against an employee as means to commit a criminal act (e.g., a robbery).

While the high workplace victimization risk for police officers is uncontested, evidence on whether violence on the job is a particularly important stressor for police officers is inconsistent. In his analysis of police stress, Symonds (1970) differentiated between stress due to the "nature of the police organization" and stress as a result of the "nature of police work" (p. 155), which parallels today's common distinction between organizational stressors (job context factors such as inadequate leadership, work overload, or bureaucracy) and operational stressors (job content factors). In police work, the latter includes exposure to violence, facing the unknown, use of force, and confrontation with human tragedy and the "dark side of social life" (Björk, 2008, p. 88). Several researchers suggested that for police officers, organizational stressors were more harmful than operational stressors (e.g., Biggam, Power, Macdonald, Carcary, & Moodie, 1997; Collins & Gibbs, 2003; Hart, Wearing, & Headey, 1995), and that exposure to danger can even be seen as exciting (Crank & Caldero, 1991). One study found that for street patrol officers, perceived physical danger was positively correlated with task motivating potential, although it also led to emotional exhaustion (Jermier, Gaines, & McIntosh, 1989). On the other hand, there is empirical evidence for the importance of operational stressors, and more specifically exposure to dangerous and violent situations (e.g., Anderson, Litzenberger, & Plecas, 2002; Anshel, Robertson, & Caputi, 1997; Coman & Evans, 1991; Gershon, Lin, & Li, 2002; Violanti & Aaron, 1995). In his review, Lennings (1997) thus states that there “is considerable ambivalence in the literature as to whether violence is a significant stressor or not on police” (p. 557). This inconsistency directs attention to the question of what differentiates police officers who react with severe stress symptoms from those who are relatively unaffected by exposure to violence, and to the question which variables can explain the inconsistent relationship between exposure to violence and strain. To answer this question, we draw on the transactional model of stress (Lazarus & Folkman, 1984), which emphasizes that individual appraisal of stressors as well as individual differences in coping with stress can explain why not all victims suffer the same consequences when exposed to stressors. Specifically, stressful experiences are construed as person-environment transactions, in which an individual’s appraisal of the transaction as irrelevant, benign-positive, or stressful (primary appraisal) and—in the case that the transaction is appraised as stressful—the individual’s assessment of available coping resources (secondary appraisal) result in more or less stress, leading to great variability of the amount and nature of experienced strain in individuals faced with the same or similar stressors (Lazarus & Folkman, 1984).

6.1.2 Potential Negative Consequences of Workplace Victimization

Exposure to workplace violence and aggression has generally been associated with a variety of personal and health-related consequences, such as cognitive, emotional, and psychosomatic symptoms, as well as work-related consequences, such as impaired performance, reduced organizational commitment, more frequent interpersonal and organizational deviance, and increased turnover or turnover intentions (e.g., Budd, Arvey, & Lawless, 1996; Driscoll, Worthington, & Hurrell, 1995; Gerberich et al., 2004; Rogers & Kelloway, 1997, Schat & Frone, 2011; Schat & Kelloway, 2000, 2003; for reviews see Hershcovis & Barling, 2010; Hogh & Viitasara, 2005; Lanctôt & Guay, 2014; Needham, Abderhalden, Halfens, Fischer, & Dassen, 2005). Empirical studies that specifically address the consequences of victimization in police officers are scarce (Perrott & Kelloway, 2006). Mechanisms by which exposure to violence or aggression might lead to strain for police officers can be deduced from several stress theories or models. In his conservation-of-resources (COR) theory, for example, Hobfoll (1989) posits that individuals strive to obtain and maintain things that they value, termed resources, and he suggested three specific conditions during which psychological stress occurs: (a) when valued resources are threatened, (b) when they are lost, or (c) when the investment of resources does not lead to resource gain. Violent victimization and the constant risk of client-initiated violence can certainly be considered as experiences that potentially lead to a resource loss or threat of resource loss. If experienced often, psychological aggression and other uncivil behavior by customers or clients (e.g., if they question the employee's authority) can represent a threat to employees' self-esteem, which is an important resource according to the COR theory. Furthermore, aggressive encounters with citizens consume resources (e.g., time, energy) without consequent payoff, which may deplete resources in a way that can lead to burnout (Hobfoll & Freedy, 1993). This was confirmed by Dormann and Zapf (2004) who found customer verbal aggression to be a particularly strong predictor of burnout in three different service jobs (even after controlling for several other social and task-related stressors and resources), and by Manzoni and Eisner (2006), who found frequent exposure to conflict-prone situations with citizens to predict depersonalization in police officers. In our study, we chose to investigate impaired psychological and somatic well-being, turnover intention, and irritability, which is an easily detectable indicator of acute mental strain as well as a precursor of long-lasting mental impairments (Mohr, Müller, Rigotti, Aycan, & Tschan, 2006). We further include symptoms of burnout, which have been suggested to be of particular importance for police work and have been researched in the context of police use of violence (Burke & Mikkelsen, 2005; Kop, Euwema, & Schaufeli, 1999; Manzoni & Eisner, 2006) but, to our knowledge, have never been introduced into earlier empirically tested fear models of the consequences of workplace violence.

Burnout is conceptualized as a psychological syndrome in response to chronic job stressors (e.g., Maslach & Jackson, 1981; Maslach, Schaufeli, & Leiter, 2001), its core dimensions are emotional exhaustion and depersonalization. A third dimension, the feeling of reduced efficacy or accomplishments on the job, has been found to work differently than the two core dimensions, raising doubts as to whether it should be considered part of burnout syndrome, probably being rather a precursor or consequence (Grant & Campbell, 2007; Schaufeli & Taris, 2005). Burnout or its dimensions have repeatedly been linked to health problems, reduced job satisfaction and commitment, as well as impaired job performance (e.g., Kop & Euwema, 2001; Maslach & Jackson, 1981; Maslach et al., 2001; for reviews, see Lee & Ashforth, 1996; Taris, 2006).

This is also true for police officers, for example with respect to mental health (Golembiewski, Lloyd, Scherb, & Munzenrider, 1992), psychosomatic complaints, life satisfaction, job satisfaction, intention to quit, and organizational commitment (Martinussen, Richardsen, & Burke, 2007), suicidal ideation (Burke & Mikkelsen, 2007), and sickness absence levels (Houdmont, 2012). In a Dutch sample of police officers, emotional exhaustion was significantly lower than in a reference group of human service workers, while depersonalization levels were significantly higher – a pattern that was also found in several studies from North America (Kop & Euwema, 2001; Kop et al., 1999). This fits with the idea that depersonalization can be an attempt to cope with emotional stressors at work (e.g., Bakker, Killmer, Siegrist, & Schaufeli, 2000; Maslach et al., 2001; Schaufeli & Taris, 2005) and that this kind of defensive coping counters and reduces other symptoms of burnout in police officers (Schaible & Gecas, 2010). To a certain degree, it is functional for police officers to emotionally distance themselves from clients (e.g., the suffering victims) to function effectively on the job. However, if the detachment towards clients becomes excessive, police officers might treat citizens in a callous, dehumanized way (e.g., Maslach et al., 2001), which is worrying as such and which in turn might aggravate the risk of violence and hostility against the police, thus creating a vicious circle of events. Indeed, Kop et al. (1999) found depersonalization to significantly predict self-reported use of violence, and observational data revealed that the use of force was related to higher levels of emotional exhaustion and depersonalization (Kop & Euwema, 2001). Winstanley and Whittington (2002) found highly significant relationships between patient/client-initiated physical assault, threatening behavior, or verbal aggression and burnout (depersonalization in particular) in a large sample of health-care staff of a general hospital, and they proposed a cyclical model in which this form of interpersonal conflict leads to elevated levels of depersonalization, which manifest themselves as behavioral changes, which in turn increase the amount of aggression from patients.

6.1.3 Models of Consequences of Workplace Violence: the Fear Models

Based on previous research on work stress, Barling (1996) proposed a mediational model on the outcomes of workplace violence, in which he emphasized the importance of fear of becoming a victim of workplace violence (stress) as a mediator between exposure to direct or vicarious violence (stressor) and several personal and organizational outcomes (strain). In a series of empirical tests of similar models, fear of future violence was indeed found to mediate the relationship between exposure to workplace violence and negative consequences: Full mediation was confirmed by Leather, Beale, Lawrence, and Dickson (1997) for a sample of pub licensees, and by Rogers and Kelloway (1997) for a sample of bank tellers; Barling et al. (2001) retained the fully mediated model and did not report details on the partially mediated model for a sample of health care professionals; Schat and Kelloway (2000) only tested and confirmed a fully mediated model for hospital and group home staff. Sinclair et al. (2002) found threat appraisals to partially mediate the relationship between exposure to student violence, threats, or aggression and job satisfaction in school employees. According to Leather et al. (1997) specific episodes of violence constitute acute stressors, while the ongoing potential for violence represents a chronic stressor. The subjective estimation of the latter can be measured as the perceived likelihood of future violence, which has been found to be influenced by the amount of exposure to violence and to predict fear of future violence (LeBlanc & Kelloway, 2002). In an extension of the original fear models, Mueller and Tschan (2011) investigated organizational prevention of violence (e.g., safety precautions) and the perceived ability to cope with future violent victimization as direct and indirect influences on fear of future violence. They found that organizational prevention was indirectly (via perceived likelihood) and perceived coping ability was directly and negatively related to fear of future violence: If employees felt that they could cope with future victimization, their fear seemed to be reduced. Again, fear of future violence was the most proximal influence on irritability and well-being. The previously cited studies were based on data from samples with low to medium risk of workplace violence or from participants employed in a range of occupations of varying risk. However, it is unclear whether these models also hold for occupational groups with such a high risk of client-initiated violence that victimization seems unavoidable, namely police officers. For them, the question is not whether one might be exposed to violence (again), but rather when it will happen, how serious it will be, and whether the consequences will hamper one’s ability to do the job in the future.

6.1.4 Perceived Coping Ability

Perceived coping ability with workplace violence captures the extent to which individuals perceive themselves as being able to cope with the consequences of future client-initiated physical assault or threats of violence at work (Mueller & Tschan, 2011). Although based on considerations about vulnerability as addressed in the fear of crime research (Killias, 1990), perceived coping ability corresponds to Bandura's self-efficacy formulation, which posits that individuals with perceived inefficacy in coping with potentially aversive situations conjure up injurious consequences, which makes them fearful and intensifies stress reactions (e.g., Bandura, 1983, 1997). Efficacy beliefs with respect to job performance have been found to moderate some relationships between organizational stressors (e.g., perceived workload) and strain (e.g., psychological strain, physical symptoms, and organizational commitment; Jex & Bliese, 1999), and generalized self-efficacy has been found to moderate the relationship between exposure to workplace bullying and psychological health complaints (Gemzøe Mikkelsen & Einarsen, 2002). Coping self-efficacy, defined as people's beliefs in their capabilities to manage stressful or threatening events (e.g., Bandura, 1997) and, particularly, posttraumatic recovery demands (Benight & Harper, 2002), was repeatedly found to predict lower general distress and less posttraumatic stress disorder (PTSD) symptom severity after a variety of natural and man-made disasters (e.g., hurricanes, Benight, Ironson et al., 1999; Benight, Swift, Sanger, Smith, & Zeppelin, 1999; fire and flash flood, Benight & Harper, 2002; terrorist bombing, Benight et al., 2000; see Luszczynska, Benight, & Cieslak, 2009, for a review regarding collective trauma) and after motor vehicle accidents (Benight, Cieslak, Molton, & Johnson, 2008). In all these studies, trauma-specific coping self-efficacy was measured days or weeks after the potentially traumatic event took place (and item-wordings fitted the situation of trauma survivors), the appraisal of the coping self-efficacy is therefore likely to be mixed with an estimation of perceived initial posttraumatic coping success. Perceived coping ability as conceptualized by Mueller and Tschan (2011) is different as it focuses on (potentially traumatic) victimization in the future and it captures perceived self-efficacy to address the psychological aftermath of future victimization in a way that does not damage personal and professional functioning (Lazarus, 1991/1998). Efficacy beliefs with respect to coping with the consequences of future workplace violence have received very little attention in the workplace violence literature (to our knowledge, they have only been investigated by Mueller & Tschan, 2011).

Police officers have been found to react with fear to physically dangerous work (e.g., Jermier et al., 1989). Because of their specific training in handling violent citizens, it may be that they worry less than employees in low- or medium-risk occupations about client-initiated violence per se. But due to the inevitability of violent encounters in their job, police officers might worry more about how well they can cope with such experiences – and possibly also how well they can *handle* their fear. This is of particular relevance within the police organizational culture, which emphasizes the need for police officers to be physically and mentally strong (Reiner, 1992). Dick (2000) reported on police officers who, after being attacked and injured by civilians, sought stress counseling because they experienced feelings of extreme anxiety and began to doubt their ability to carry out their job. In particular, they worried that heightened anxiety would make them less reliable in difficult situations or that their colleagues might see them as less dependable (similar worries were reported by Anderson & Bauer, 1987). They felt that the event had changed them for the worse, and they experienced the dangerousness and unpredictability of their job in a new, aversive way. These officers clearly appraised the psychological impact of the violent attack as harmful – as undermining or even shattering their assumptions and destroying their illusions of invulnerability (see Janoff-Bulman, 1992). If such damage has not yet been done, officers may still fear such consequences if they doubt their ability to cope effectively with victimization. Perceived coping ability can thus be expected to determine the extent to which the individual officer makes threat appraisals (Lazarus & Folkman, 1984) with respect to workplace victimization. Officers with high perceived coping ability will be less likely to feel threatened by the ever-present likelihood of future violence and will thus experience less strain.

6.2 Study 1: Model of the Consequences of High Levels of Client-Initiated Violence and Aggression

In Study 1, we proposed and tested a model which combines the core elements of the fear models with adding perceived coping ability as an exogenous factor (Figure 9). As in the model of LeBlanc and Kelloway (2002), we posited exposure to client-initiated workplace violence or psychological aggression (stressor) to predict perceived likelihood of future violence, which in turn was posited to predict fear of future violence (stress). While LeBlanc and Kelloway hypothesized but did not find that fear of future violence predicted personal as well as organizational outcomes (strain), Leather et al (1997), Rogers and Kelloway (1997), Schat and Kelloway (2000), and Barling et al. (2001) found such direct and indirect relationships, and Mueller and Tschan (2011) found fear to predict irritability, impaired psychological and physical well-being. We thus hypothesized that fear would predict our outcome measures irritability, impaired physical and psychological well-being, and symptoms of burnout. In accordance with Mueller and Tschan, fear was not posited to predict turnover intentions, as we expected our sample to be influenced by a bias similar to the healthy worker effect, causing police officers for whom fear of future violence is a reason to consider a change of occupation to leave frontline policing rather quickly. We further hypothesized that perceived coping ability would predict fear of future violence and all four outcome variables. All relationships in the proposed model are displayed in Figure 9.

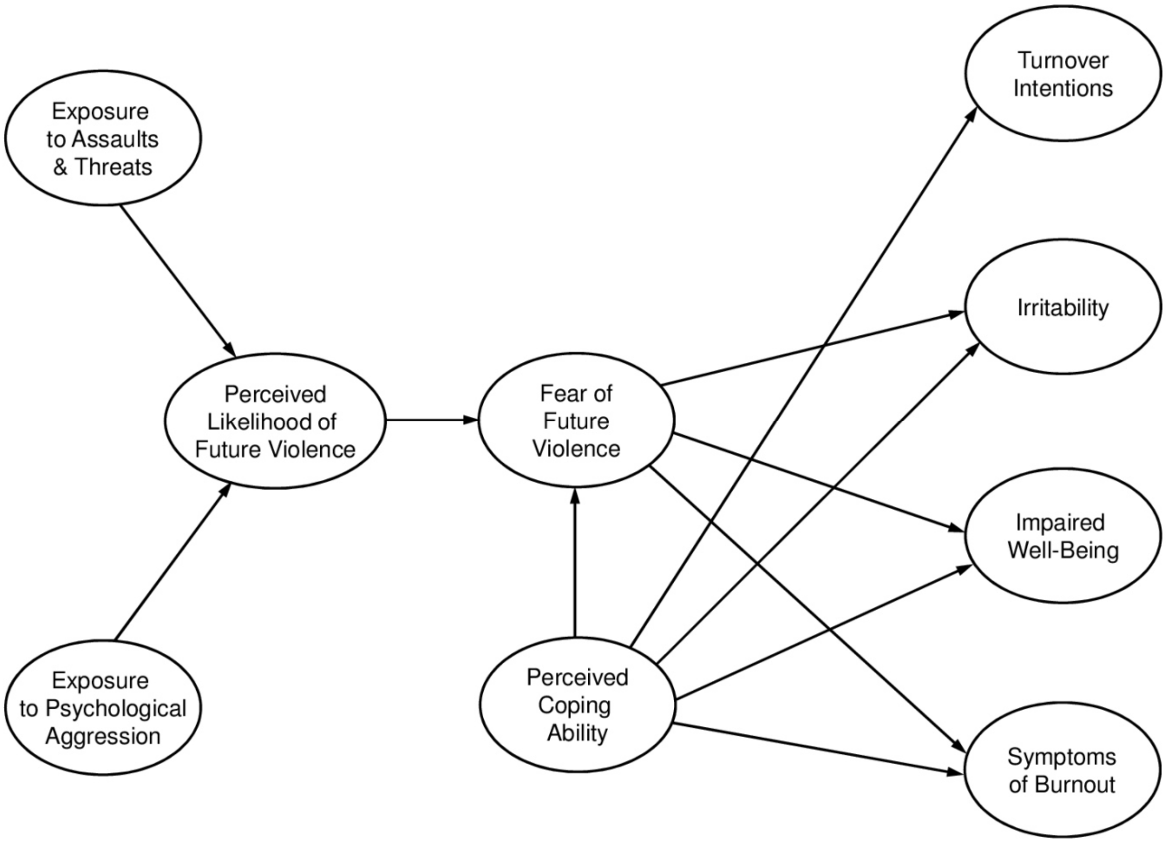
Exposure to Assaults & Threats
Exposure to Psychological Aggression
Perceived Likelihood of Future Violence
Fear of Future Violence
Perceived Coping Ability
Turnover Intentions
Irritability
Impaired Well-Being
Symptoms of Burnout

Figure 9: Proposed model of the consequences of high levels of client-initiated workplace violence and psychological aggression

We compared the proposed model, in which the relationships between exposure to violence or aggression and three outcome variables were posited to be fully mediated by the perceived likelihood and fear of future violence, with possible alternative models. In particular, we tested a partially mediated model, which included all paths of the proposed model, an additional path from fear of future violence to turnover intentions, and direct paths from both kinds of exposure to all four outcome variables (Model 1). A nonmediated model contained direct paths from exposure to violence, from exposure to aggression, from fear of future violence, and from perceived coping ability to all four outcome variables, but no indirect paths via perceived likelihood and fear of future violence (Model 2). We then refined the best-fitting model to lead us to our final model.

6.3 Method

6.3.1 Participants and Procedure

Participants were 596 operational police officers (82% male). Eight percent of the participants did not provide further demographic information. Among the others, 22% were younger than 30 years; 44% between 30 and 39 years, 21% between 40 and 49 years, and 13% were 50–65 years old. Job experience (active duty) was up to one year for 8%, 43% had 2–9 years of experience, and 49% had 10 or more years of experience. The participants were recruited from two Swiss police corps, serving populations of approximately 370,000 and 260,000 living in small cities and rural environments. All frontline staff (664 police officers in corps 1; 310 officers in corps 2) received an invitation to participate from their management with information about the study, explicit management and union support for the study, and an internet link to the online questionnaire. The management of the smaller corps sent an internal police psychologist to visit the frontline teams in order to encourage participation. Participants were allowed to answer the survey during working hours. Participation was voluntary and anonymous. The response rate was 61% (50% in corps 1 and 85% in corps 2).

6.3.2 Measures

All measures were used in their German version (item wordings were either originally in German or translated in the course of earlier research on workplace violence or burnout).

Exposure to client-initiated violence. Ten items, based on the list of direct and subtle violence against police officers and paramedics (EMTs) developed by Baitsch (2003), were used to assess exposure to violence. The source of the violence was clearly specified as clients. The ten items were split to build two indicators*. Exposure to assault* was assessed with a seven-item index containing questions about how often in the previous year participants experienced physical assault with weapons, without weapons with and without danger of injury, immediate threats with a weapon, attempts to be run over by car, dog attacks commanded by persons, or witnessed physical attacks or use of weapons against a teammate (Cronbach's $\alpha = .78$). *Exposure to threats* was assessed with a three-item index containing questions about exposure to massive verbal threats, exposure to serious threats against the officer's family, or confrontations with a group of aggressive people ($\alpha = .76$). The answering format for both indices was a six-point scale representing the number of exposures during the last 12 months (*never, once, 2-3 times, 4-6 times, 7-12 times, more than 12 times*).

Exposure to psychological aggression by clients. To assess exposure to psychological aggression by clients, five items based on Baitsch's (2003) list of direct and subtle violence against police officers and paramedics (EMTs), were used and split to build two indicators. One indicator assessed the frequency of verbal and gestural insults during the last 12 months (2 items, intercorrelation was $r = .82$, $p = .000$). A three-item indicator asked about experiences of being ignored when attempting to make contact, or when giving orders, and of being touched in a disrespectful (but not violent) way by clients ($\alpha = .79$). The answering format was a five-point scale (*less than once a month, about once a month, several times per month, several times a week, almost daily*).

Perceived likelihood of future violence. Three items based on a measure of LeBlanc and Kelloway (2002) and used by Mueller and Tschan (2011) served as indicators. Participants assessed the likelihood of violent experiences with clients in the next 12 months (being physically attacked without a weapon, threatened or attacked with a weapon, injured by a client). The answering format was a slider ranging from *0%* to *100%* (α = .87).

Fear of future violence. Three items based on a measure of Rogers and Kelloway (1997) and used by Mueller and Tschan (2011) were slightly modified to fit the context and served as indicators. They covered worries about of physical attacks by clients, attacks or threats with a weapon, and worries about being injured by a client. The answering format was a seven-point scale (*strongly disagree* to *strongly agree;* α = .95).

Perceived coping ability. Originally, three items were supposed to serve as indicators: two from the scale of Mueller and Tschan (2011) ("I suppose that threats or violence from a customer/client would shake me profoundly", reverse coded; "I consider myself to be able to cope well after an assault by a customer/client") and one item adapted from Schwarzer and Jerusalem (1995) ("Whatever happens to me when dealing with clients, I can rely on my coping abilities"). The answering format was a seven-point scale ranging from *strongly disagree* to *strongly agree*. A reliability analysis revealed that in the current sample the internal consistency of the scale was low (α = .51) due to the low correlation of the first item with the other two items. We therefore decided to use only the second and third item as indicators (r = .48, p = .000; see discussion).

Turnover intention. Intent to turnover was indicated by two items based on Bluedorn (1982) and used by Mueller and Tschan (2011; "If certain things at work do not change soon, I will look for a different job" and "Recently, I have often thought about leaving the organization"). The answering format was a seven-point scale ranging from *strongly disagree* to *strongly agree* (r = .75, p = .000).

Irritability. Irritability was indicated by two items from the emotional irritation scale (Mohr, Rigotti, & Müller, 2005), also used by Mueller & Tschan (2011): "I anger quickly" and "I get irritated easily, although I don't want this to happen". The answering format was a seven-point scale (*strongly disagree* to *strongly agree;* r = .77, p = .000).

Impaired well-being. Impaired well-being was measured with 17 items from the psychosomatic complaints list (Mohr, 1986), split to build two indicators: somatic complaints (7 items; e.g., headaches, back pain) and psychological complaints (10 items; e.g., feeling depressed, concentration difficulties). The answering format was a five-point scale (*almost never/never, every few months, every few weeks, every few days, almost every day;* $\alpha = .77$ and $\alpha = .89$).

Symptoms of burnout. The exhaustion subscale (9 items) and the depersonalization subscale (5 items) of the Maslach Burnout Inventory (Maslach & Jackson, 1981) served as indicators. We adapted the German version of Büssing and Perrar (1992) for work with clients. The answering format was a six-point scale (*never, a few times a year, about once a month, several times a month*, *several times a week, every day;* $\alpha = .83$ and $\alpha = .63$, respectively).

6.4 Results

Descriptive statistics and intercorrelations for all variables are displayed in Table 6. The assumption of normality was violated for several of the indicator variables, but no out-of-range skewness or kurtosis values were found (Kline, 2005). Goodness-of-fit indices like the comparative fit index (CFI) and the root-mean-square error of approximation (RMSEA) are relatively insensitive to distribution (Hu & Bentler, 1998). All models were tested using AMOS (Version 22, Arbuckle, 2013). As some data was missing, we used the full information maximum likelihood (FIML) estimation procedure. The model fit was assessed with RMSEA (values lower than .06 indicate a good fit) and CFI (values close to .95 or greater indicate a relatively good fit; Hu & Bentler, 1998). Nested models were compared using the chi-square difference test; the AIC was employed to compare non-nested models. All fit indices are displayed in Table 7.

We used a two-step approach to evaluate the models (as recommended by Anderson & Gerbing, 1988). First, the fit of the measurement model was established via confirmatory factor analysis, CFI = .976, RMSEA = .045 (CI .038-.052, *p*close = .869). In a second step, a nested models strategy was used to test and compare three versions of the full latent-variable structural model: the proposed fully mediated model, a partially mediated model, and a nonmediated model (as described above). Each model had three exogenous variables (exposure to violence, exposure to psychological aggression, and perceived coping ability) and six endogenous variables (perceived likelihood of future violence, fear of future violence, turnover intentions, irritability, impaired well-being, and symptoms of burnout), with a total of twenty indicators.

Table 6: Descriptive statistics and intercorrelations of study variables (Study 1)

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Exposure to physical assault (1-6)	1.42	0.52	–												
2. Exposure to threats (1-6)	2.46	1.13	.75***	–											
3. Exposure to verbal/gestural insults (1-5)	2.52	1.05	.47***	.63***	–										
4. Exposure to other disrespect (1-5)	1.67	0.73	.44***	.54***	.65***	–									
5. Likelihood of future violence(1-100)	35.22	26.70	.46***	.52***	.50***	.43***	–								
6. Fear of future violence (1-7)	3.24	1.58	.31***	.37***	.36***	.35***	.48***	–							
7. Perceived coping ability (1-7)	5.31	1.14	.07	.07	.03	-.02	.08	-.01	–						
8. Turnover intentions (1-7)	2.28	1.41	.19***	.20***	.16***	.17***	.15***	.17***	-.15***	–					
9. Irritability (1-7)	2.76	1.34	.12**	.15***	.14**	.12**	.10*	.23***	-.16***	.22***	–				
10. Psychological complaints (1-5)	1.79	0.67	.14**	.19***	.17***	.14**	.08	.23***	-.20***	.34***	.57***	–			
11. Somatic complaints (1-5)	1.59	0.60	.11**	.15***	.16***	.13**	.10*	.20***	-.15***	.25***	.39***	.69***	–		
12. Emotional exhaustion (0-5)	0.98	0.69	.22***	.19***	.14**	.15***	.13**	.27***	-.21***	.42***	.45***	.65***	.50***	–	
13. Depersonalization (0-5)	1.61	0.88	.30***	.31***	.33***	.24***	.27***	.37***	-.06	.28***	.30***	.33***	.25***	.43***	–

Note. $^{*}p < .05$ $^{**}p < .01$ $^{***}p < .001$

Table 7: Fit indices for measurement and structural models

Model	CFI	RMSEA	CI RMSEA	*p*close	AIC	χ^2/df	χ^2_{diff}
Measurement Model	.976	.045	.038-.052	.869	489.010	2.216	
Proposed Model, mediated	.969	.048	.041-.054	.711	514.119	2,356	
Compared with Model 1							38.952***
Compared with Model 1a							38.163***
Model 1, partially mediated (with paths from violence & aggression to outcomes)	.974	.046	.039-.052	.862	493.166	2.232	
Model 1a, partially mediated (without paths from aggression to outcomes)	.974	.044	.038-.051	.913	485.956	2.177	
Compared with Model 1							.790
Model 2, nonmediated	.919	.079	.073-.085	.000	860.325	4.742	
Compared with Model 1							373.158***

Notes: CFI = comparative fit index; RMSEA = root-mean-square error of approximation; CI RMSEA = 90% confidence interval around the RMSEA value; *p*close = *p* value for closeness of fit; AIC = Akaike information criterion; χ^2/df = relative/normed chi-square; *** p < .001

All models allowed correlations between exposure to violence and exposure to aggression as well as residual correlations among the four outcome variables (but no correlated errors between indicators). The proposed model (see Figure 9) provided an adequate fit to the data, CFI = .969, RMSEA = .048 (CI .041-.054, *p*close = .711). However, it provided a significantly poorer fit than the partially mediated model (Model 1), which allowed all paths of the proposed model, an additional path from fear of future violence to turnover intentions, and direct paths from both kinds of exposure to all four outcome variable to be estimated, CFI = .974, RMSEA = .046 (CI .039-.052, *p*close = .862), $\Delta\chi^2$ (9, *n* = 596) = 38.95, *p* = .000. The nonmediated model provided a significantly poorer fit to the data than Model 1; CFI = .919, RMSEA = .079 (CI .073-.085, *p*close = .000), $\Delta\chi^2$ (3, *n* = 596) = 373.16, *p* = .000. In the partially mediated Model 1, the paths from psychological aggression to the outcome variables were statistically not significant and therefore constrained to zero, leading us to an additional Model 1a, which provided the best fit to the data, CFI = .974, RMSEA = .044 (CI .038-.051, *p*close = .913), and was used for further analysis. Estimations revealed that all paths were significant (p < .05) in the expected direction, except the path from perceived coping ability to fear of future violence, which was just above conventional significance levels (p = .061), leading us to retain Model 1a as the final model, shown in Figure 10.

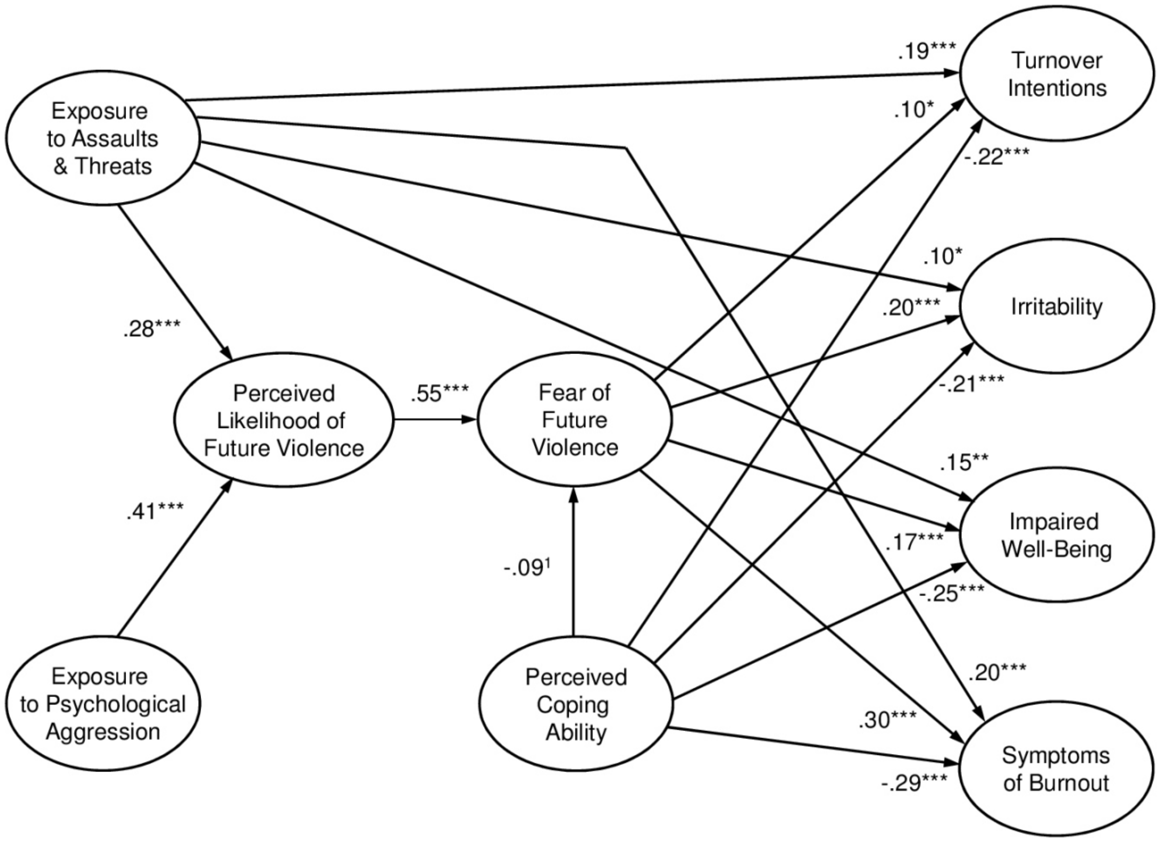
.19***
Turnover Intentions
Exposure to Assaults & Threats
.10*
-.22***
.10*
Irritability
.20***
.28***
-.21***
Perceived Likelihood of Future Violence
.55***
Fear of Future Violence
.15**
.41***
Impaired Well-Being
.17***
-.09¹
-.25***
Exposure to Psychological Aggression
Perceived Coping Ability
.20***
.30***
Symptoms of Burnout
-.29***

Figure 10: Standardized parameter estimates for the final model of the consequences of high levels of client-initiated workplace violence and psychological aggression; *p < .05, **p < .01, ***p < .001; ^1p = .061

For reasons of clarity, the indicators and factor loadings are not presented, but all standardized loadings were between .71 and .97, except for two that were .64 and .52, respectively. Our final model, in which the relationships between exposure to violence and the outcome variables were partially mediated and the relationships between exposure to psychological aggression and the outcome variables were fully mediated by the perceived likelihood and fear of future violence, provided a significantly better fit than the proposed, fully mediated model, $\Delta\chi^2$ (5, n = 596) = 38.16, p = .000.

6.5 Study 2: Direct and Moderating Effects of Perceived Coping Ability on Dimensions of Burnout

Results from Study 1 demonstrated that exposure to client-initiated violence directly and indirectly predicted symptoms of burnout in a cross-sectional sample of police officers. Exposure to psychological aggression was an indirect and perceived coping ability another direct predictor of strain. In Study 2, we employed longitudinal data to further investigate the role of perceived coping ability and, particularly, to test whether perceived coping ability buffers the effects of exposure to violence and psychological aggression on symptoms of burnout in police officers. Based on the results from Study 1 we expected that exposure to workplace violence, exposure to psychological aggression, and perceived coping ability would impact symptoms of burnout. Based on the rationale outlined above, we hypothesized that perceived coping ability would moderate the relationships between victimization and symptoms of burnout, specifically that the relationship between exposure to violence or psychological aggression and symptoms of burnout is stronger for police officers reporting low, rather than high, levels of perceived coping ability. Additionally, we wanted to test whether symptoms of burnout predict future exposure to violence and aggression, that is, whether our data indicate the existence of a positive feedback loop between victimization and burnout (a vicious circle).

> Hypothesis 1a: Exposure to violence (assaults and threats) will be positively related to emotional exhaustion and depersonalization.
>
> Hypothesis 1b: Exposure to psychological aggression will be positively related to emotional exhaustion and depersonalization.
>
> Hypothesis 2: Perceived coping ability will be negatively related to emotional exhaustion and depersonalization.
>
> Hypothesis 3a: Perceived coping ability will negatively moderate the positive relationship between exposure to client-initiated violence (assaults and threats) and emotional exhaustion.
>
> Hypothesis 3b: Perceived coping ability will negatively moderate the positive relationship between exposure to psychological aggression and emotional exhaustion.

Hypothesis 3c: Perceived coping ability will negatively moderate the positive relationship between exposure to violence (assaults and threats) and depersonalization.

Hypothesis 3d: Perceived coping ability will negatively moderate the positive relationship between exposure to psychological aggression and depersonalization.

Hypothesis 4a: Symptoms of burnout at Time 2 will predict exposure to violence at Time 3.

Hypothesis 4b: Symptoms of burnout at Time 2 will predict exposure to aggression at Time 3.

6.6 Method

6.6.1 Participants and Procedure

Our main sample for Study 2 consisted of 112 members of six police academy classes of an urban police force in Switzerland (serving approximately 390’000 inhabitants) who participated in a three-year longitudinal study (only part of the data is reported here). Participants completed questionnaires at the beginning of their first or second year of the two-year academy (three classes each; Time 1), on the last day of their academy training (Time 2), and one year after graduation (Time 3). Data were collected between 2006 and 2010. At each data collection, the first author informed the trainees about the management support for the study and its purpose, and handed out questionnaires and stamped envelopes. Participants completed the questionnaire during paid hours. Participation was voluntary and anonymous; a six-digit code based on information known only to the participant was used to match questionnaires over time. At Time 1 and Time 2, response rate was 100% (t1 n = 145; t2 n = 140). At Time 3, 112 out of 137 (82%) police officers returned the questionnaire. Of this final sample, 78% were male. Nine per cent of participants were younger than 25 years, 68% between 25 and 29 years, 23% were 30 to 34 years old, and 4% 35 or older. Seventy-one percent had a secondary education in terms of an apprenticeship, 23% had a college-level degree, and 6% held a master's degree. A comparison of continuous participants with drop-outs since Time 2 (three job-leavers and 25 non-responders) revealed no significant differences regarding any of the demographic variables or study variables specified below. As all participants of our main sample had only one year of frontline experience as police officers at Time 3, we refer to them as "police novices" (or sample 2). To probe whether the results might be generalizable to more experienced police officers, we repeated all analyses with cross-sectional data from the sample used in Study 1 (participants with varying length of service). We refer to these participants as "experienced officers" (or sample 1).

6.6.2 Measures

Exposure to client-initiated workplace violence. Exposure to violence was measured with an index consisting of the same ten items as used in Study 1, measuring assaults and threats experienced during the year before the survey. The answer format was the same as in Study 1 ($\alpha = .68$; sample 1: $\alpha = .85$).

Exposure to psychological aggression by clients. Eight items were used to measure the frequency of exposure to psychological aggression in the preceding year. Five items were identical to Study 1. Three additional items covered getting spat at, sexual harassment by words or gestures, and unjustified complaints. The answer format was the same as in Study 1 ($\alpha = .74$; sample 1: $\alpha = .82$).

Perceived coping ability. The same two-item-scale was used as in Study 1 ($r = .55$, $p = .000$).

Emotional exhaustion. The same scale was used as in Study 1 ($\alpha = .87$).

Depersonalization. The same scale was used as in Study 1 ($\alpha = .60$).

Control Variables. We controlled for participant *gender* (0 = *male*, 1 = *female*) and *age group* (1 = *up to 24 years*, 2 = *25-29 years*, 3 = *30 and more years;* in sample 1: 1 = *up to 29 years*, 2 = *30-39 years*, 3 = *40-49 years,* 4 = *50 and more years*). In sample 2, we additionally controlled for pre-employment symptoms. Exhaustion and depersonalization scales are not suited at the baseline, because the item wording refers to contact with clients, which trainees had not yet had at Time 1. We used *psychological complaints* (Mohr, 1986, see Study 1) to control for pre-employment psychological well-being or, more precisely, psychological ill-health. Items and answer formats were identical to Study 1 (α = .74). We also controlled for *Time 2 emotional exhaustion* (α = .78) or *Time 2 depersonalization* (α = .56), respectively. For sample 2, all other variables were measured at Time 3, after one year of full active duty.

6.7 Results

Table 8 shows the means, standard deviations, and intercorrelations among all variables and for both samples. The assumption of normality was violated for all variables except for depersonalization, but no out-of-range skewness or kurtosis values were found (Kline, 2005). In sample 2, two cases with multivariate outliers, identified using Mahalanobis distance (alpha = .001), and exerting undue influence on regression results, were removed from the data (except for the descriptive results).

6.7.1 Descriptive Results for Police Novices

During their first year of full active duty, 87% of the police novices had been exposed to at least one physical assault (with or without a weapon), 21% had been threatened with a weapon, 71% were exposed to massive verbal threats, and almost all (96%) were confronted with groups of aggressive people, most of them repeatedly. For 29% of the police novices, encounters with clients led to physical injuries (usually minor). The majority of police novices reported high perceived coping ability: On a scale ranging from 1 to 7, 79% of the participants indicated values of 5 or more, and 62% indicated values of 6 or more (*M* = 5.56, *SD* = 1.09). On a scale ranging from 0 to 5, the average level of emotional exhaustion (Time 3) was relatively low (*M* = 0.77, *SD* = 0.65), levels of depersonalization (Time 3) were clearly higher (*M* = 1.77, *SD* = 0.75).

6.7.2 Descriptive Results for Experienced Officers

Sixty-five percent of the experienced police officers (sample 1) reported exposure to at least one physical assault in the past year, 13% were threatened with a weapon, 70% were exposed to massive verbal threats, and 82% were confronted with groups of aggressive people, most of them repeatedly. Twenty-eight percent reported physical injuries as a result of client violence.

Table 8: Summary of intercorrelations, means, and standard deviations for study variables in sample 1 and sample 2 (Study 2)

Variable	1	2	3	4	5	6	7	8	9	10	*M*	*SD*
1. Gender (0 = m, 1 = f)	–	.06	-.14	-.12	-.02	-.04	-.13	.30**	.06	-.06	0.22	0.42
2. Age group (1-3^{a}/4^{b})	-.20***	–	-.04	.02	.03	.16	.00	.09	-.04	-.13	2.15	0.56
3. Exposure to violence (1-6)	-.13**	-.14**	–	.35***	.18	.06	.20*	-.12	-.13	.24*	1.91	0.47
4. Exposure to aggression (1 -5)	-.02	-.22***	.59***	–	-.05	.26**	.41***	.08	.11	.20*	1.81	0.43
5. Perceived coping ability (1-7)	-.04	-.15***	.07	-.00	–	-.37***	-.29**	-.20*	-.24*	-.02	5.60	1.00
6. Emotional exhaustion (0-5)	-.04	.12**	.22***	.16***	-.21***	–	.48***	.34***	.54***	.24*	0.76	0.60
7. Depersonalization (0-5)	-.00	-.16***	.32***	.30***	-.06	.43***	–	.11	.33***	.48***	1.77	0.75
8. Psychological complaints T1 (1-5)								–	.35***	.08	0.66	0.42
9. Emotional exhaustion T2 (0-5)									–	.29**	0.54	0.47
10. Depersonalization T2 (0-5)										–	1.51	0.71
M	0.18	2.25	1.73	1.65	5.31	0.98	1.61					
SD	0.39	0.94	0.66	0.52	1.14	0.69	0.88					

Notes. Intercorrelations for participants of sample 1 (n = 596) are presented below the diagonal, and intercorrelations for participants of sample 2 (n = 110) are presented above the diagonal. Means and standard deviations for sample 1 are presented in the horizontal rows, and means and standard deviations for sample 2 are presented in the vertical columns. $^{*}p < .05$ $^{**}p < .01$ $^{***}p < .001$; ^{a} Sample 2 (police novices) ^{b} Sample 1 (experienced officers)

Perceived coping ability was relatively high: 75% of the participants indicated values of 5 or more, and 49% indicated values of 6 or more (scale range 1-7, M = 5.30, SD = 1.14). On a scale ranging from 0 to 5, the average level of emotional exhaustion was relatively low (M = 0.98, SD = 0.69); levels of depersonalization were higher (M = 1.61, SD = 0.88).

6.7.3 Results of Regression Analyses

We performed moderated multiple regression analyses to test hypotheses 1–3 in the sample of police novices. Independent variables were mean-centered. Model 1 contained the control variables gender, age, psychological ill-health at Time 1, and the dependent variable at Time 2. In Model 2, we entered exposure to violence or exposure to psychological aggression and perceived coping ability. In the third step, we entered the interaction term between exposure and perceived coping ability. Results are displayed in Table 9. In terms of Hypotheses 1a and 1b, exposure to violence was significantly and positively related to emotional exhaustion, but not to depersonalization; exposure to psychological aggression was significantly and positively related to emotional exhaustion and, particularly, to depersonalization. In support of Hypothesis 2, perceived coping ability was significantly and negatively related to emotional exhaustion and depersonalization. Hypotheses 3a–d state that the relationships between exposure to violence or psychological aggression and emotional exhaustion or depersonalization will be moderated by perceived coping ability. In the first moderated regression, the interaction term significantly increased R^2, supporting hypothesis 3a. Figure 11 presents the relationship between exposure to violence and emotional exhaustion as a function of perceived coping ability (after controlling for gender, age group, pre-employment psychological complaints and emotional exhaustion one year before the final data gathering): Even though the size of the effect is moderate, the results indicate that higher degrees of perceived coping ability mitigate the effect of high levels of exposure to client-initiated violence on emotional exhaustion. Hypotheses 3b–d were not supported by the data. To test whether these results can be replicated with a sample of experienced police officers, we applied the same data analysis strategy to the cross-sectional data from sample 1 (with only gender and age group as control variables).

Table 9: Moderated regression results for emotional exhaustion and depersonalization (police novices, sample 2, *n* = 109; experienced officers, sample 1, *n* = 542/543)

		Emotional exhaustion			Depersonalization		
Step	Predictor	β	R^2	ΔR^2	β	R^2	ΔR^2
POLICE NOVICES							
Control variables							
1	Gender	-.14	.37	.37***	-.13	.26	.26***
	Age group	.17*			.06		
	T1 Psychological complaints	.20*			.11		
	T2 Dependent variable[a]	.49***			.48***		
Main effects							
2a	Exposure to violence	.18*	.45	.08**	.13	.34	.08**
	Perceived coping ability	-.26**			-.29**		
2b	Exposure to aggression	.17*	.45	.08**	.30***	.41	.15***
	Perceived coping ability	-.23**			-.25**		
Interaction effects							
3a	Exposure to violence x Perceived coping ability	-.19*	.48	.03*	-.10	.35	.01
3b	Exposure to aggression x Perceived coping ability	-.01	.45	.00	-.05	.41	.00
EXPERIENCED OFFICERS							
Control variables							
1	Gender	-.02	.02	.02*	-.03	.02/.03	.02/.03**
	Age group	.12**			-.16***		
Main effects							
2a	Exposure to violence	.25***	.11	.10***	.31***	.13	.10***
	Perceived coping ability	-.20***			-.10*		
2b	Exposure to aggression	.17***	.08	.07***	.25***	.10	.08***
	Perceived coping ability	-.19***			-.18***		
Interaction effects							
3a	Exposure to violence x Perceived coping ability	-.15***	.13	.02***	-.10*	.13	.01*
3b	Exposure to aggression x Perceived coping ability	-.13**	.10	.02**	.01	.10	.00

Note. *$p < .05$ **$p < .01$ ***$p < .001$; [a] Emotional exhaustion or depersonalization

Hypotheses 1a, 1b, and 2 were supported by the data. Furthermore, Hypotheses 3a–c were supported, while no support was provided for Hypothesis 3d. That is, perceived coping ability again buffered the effect of exposure to violence on emotional exhaustion. Unlike in the sample of police novices, perceived coping ability also buffered the effects of exposure to aggression on emotional exhaustion; it also significantly moderated the relationship between exposure to violence and depersonalization, but the effect was very small.

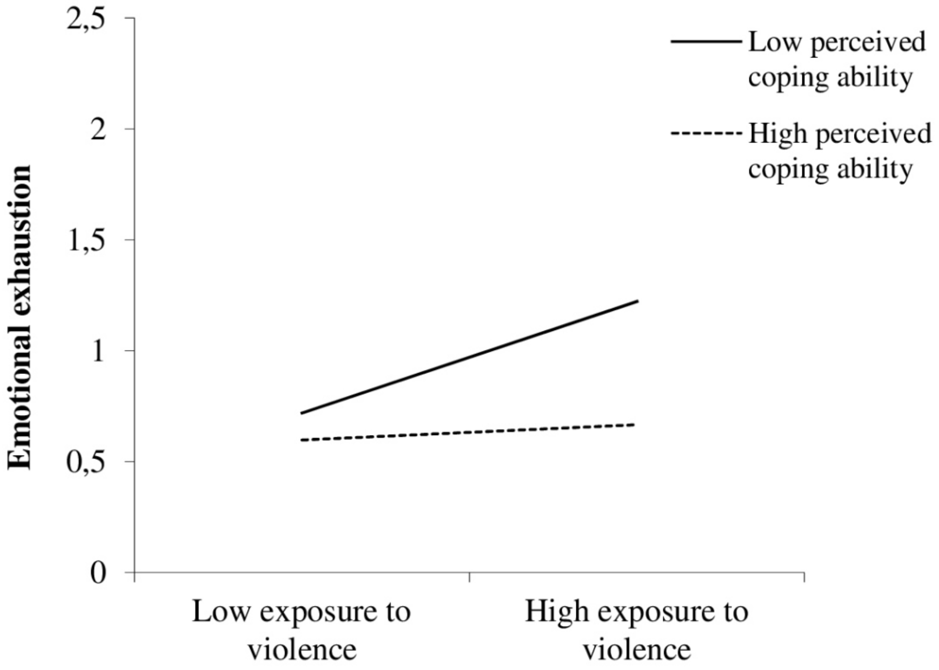

Figure 11: Interaction between exposure to violence and perceived coping ability on emotional exhaustion (*n* = 111 police novices)

To test for reversed causal effects (Hypothesis 4a–b), namely the possibility that police officers with symptoms of burnout behave in a way that leads to more victimization in the future, we ran two hierarchical regression analyses on our longitudinal data from the police novices. In Step 1, we entered gender and age group as control variables. In Step 2, we added emotional exhaustion at T2 and depersonalization at T2. The dependent variable was exposure to violence at T3 or exposure to psychological aggression at T3. None of the control variables was a significant predictor (Model 1: $R^2 = .02$, $F(2, 106) = 1.06$, $p = .350$). However, emotional exhaustion at T2 and depersonalization at

T2 were significantly related to exposure to violence at T3 (Model 2: R^2 = .11, F(4, 104) = 3.35, p = .013), supporting Hypothesis 4a. Interestingly, emotional exhaustion at T2 was *negatively* related (β = -.21, p = .034) whereas depersonalization was positively related (β = .30, p = .003) to exposure to violence at T3. With regard to exposure to psychological aggression at T3, neither the control variables (Model 1: R^2 = .02, F(2, 106) = 0.81, p = .447), nor emotional exhaustion at T2 (β = .07, p = .518) or depersonalization at T2 (β = .18, p = .075) showed significant effects (Model 2: R^2 = .06, F(4, 104) = 1.60, p = .179), providing no support for Hypothesis 4b (although depersonalization had a substantive effect just above traditional significance levels, which implies that some effects of depersonalization on exposure to aggression in the following year might exist).

6.8 Discussion

"Violence is not an occupational hazard", states the subheading of a current national poster campaign promoting the cessation of violence against police officers in our country. Well, unfortunately it is. Our results show that for police officers, exposure to client-initiated physical violence, threats, verbal abuse, and other hostile behavior is a common experience. While findings from studies with medium-risk occupational groups emphasize the crucial role of fear of future violence for negative consequences of victimization at work (Barling et al., 2001; Leather et al., 1997, Mueller & Tschan, 2011; Rogers & Kelloway, 1997; Schat & Kelloway, 2000), we found in Study 1 that for police officers perceived coping ability is as important as a predictor of negative outcomes as fear of future violence. Other results were unexpected: First, perceived coping ability did not significantly predict fear of future violence in our sample of experienced police officers. This differs from earlier findings from a medium-risk sample of job center and social security office staff, for whom perceived coping was strongly and negatively related to levels of fear (Mueller & Tschan, 2011). Unfortunately, the measure of perceived coping ability was not the same in both studies (see limitations and suggestions for future research), which makes the interpretation of this result difficult: We assume that this difference stems from the fact that the occupational groups have to face different levels of workplace violence and therefore differ with respect to preparation for and experience with such events. However, we cannot rule out that it comes from the altered content of the perceived coping ability measure. Second, contrary to earlier findings and our expectations, exposure to violence was only partially mediated by the perceived likelihood and fear of future violence. It also exerted a direct, significant influence on all four outcome variables, which emphasizes the role of client-initiated workplace violence as a relevant stressor for police officers. Third, fear of future violence was a comparably weak, but statistically significant predictor of turnover intentions, indicating that some, but not all police officers who worry about victimization are able or willing to leave frontline policing.

As we consider burnout to be of high relevance for the police—and for police-citizen-relationships in particular—we examined whether perceived coping ability moderates the relationship between victimization and symptoms of burnout in Study 2. Higher levels of perceived coping ability indeed buffered against the negative effects of high levels of exposure to violence on emotional exhaustion. Our confidence in this finding is enhanced by two factors: First, we used longitudinal data from a sample of police novices and controlled not only for gender and age, but also for pre-employment psychological well-being as well as for emotional exhaustion one year before the final survey. Second, we replicated the finding using cross-sectional data from Study 1 (experienced officers). However, contrary to our hypotheses, perceived coping ability did not moderate the relationship between exposure to violence and depersonalization, or the relationship between exposure to aggression and symptoms of burnout in our sample of police novices. Results from the analysis of cross-sectional data from our sample of experienced officers were similar with respect to depersonalization, but unlike in the sample of novices, perceived coping ability buffered the effect of exposure to aggression on emotional exhaustion in the sample of experienced officers. It may be that with increasing job experience, police officers learn that psychological aggression often precedes violence and is therefore perceived as an indicator for danger, leading to similar reactions as threats of violence or physical assaults. Moderator effects were rather small, which might be due to the fact that the majority of participants reported high levels of perceived coping ability, but our findings still support the claim that even in the face of high threat levels, strain—in our case emotional exhaustion—will be comparatively low when strong coping resources are available (Lazarus & Folkman, 1984). In terms of the conservation of resources theory (COR; Hobfoll, 1989), the results imply that victimized police officers tend not to experience a substantial loss of resources or threat of resource loss as long as they perceive their coping ability to be high. The results thus help explaining why some individuals appear largely unaffected by victimization, while others suffer from negative consequences (Lennings, 1997). However, our findings also show that perceived coping ability is not a panacea: The relationship between victimization on the job—particularly exposure to psychological aggression—and depersonalization was not moderated by perceived coping ability.

In this study, we investigated symptoms of burnout mainly as a potential consequence of exposure to client-initiated violence and aggression, but we also hypothesized that symptoms of burnout would predict victimization in the following year. Kop et al. (1999) investigated the relationship between burnout and police officers' own use of violence. They found emotional exhaustion to be negatively related to the self-reported use of violence in police officers, whereas depersonalization positively predicted the use of force, leading to a negative pattern of interaction. Our test for reversed causation indeed revealed support for the notion that depersonalized officers may become caught in a vicious circle of violence and hostility. Although we did not directly replicate the findings of Kop et al. (as their dependent variable was the self-reported use of force, whereas ours was self-reported victimization), our results parallel theirs. In particular, we also found a positive relationship between depersonalization at T2 and exposure to violence at T3, and a *negative* relationship between emotional exhaustion at T2 and exposure to violence at T3, supporting the notion that emotionally exhausted officers might tend to act less dominantly and avoid confrontations with civilians (Euwema, Kop, & Bakker, 2004). Based on the results of this study, we suggest an explanation for the seeming discrepancy between the findings of Kop et al., who found emotional exhaustion to be negatively related to self-reported use of force, and those of Kop and Euwema (2001), who found emotional exhaustion and depersonalization to be high in police officers that were observed to use force: As long as emotionally exhausted police officers have the freedom (or discretion) to choose whether or in what way to intervene, they tend to act less dominantly and avoid confrontations to shorten interactions with civilians (as suggested by Kop et al., 1999), which leads to less violent victimization and less use of force. However, if confrontations, such as interventions in conflict situations, are inevitable, they might act less calmly and patiently, which leads to more victimization and use of force. But while Euwema et al. (2004) implied that moderate burnout levels in police officers might actually be welcome from a management viewpoint, as emotional exhaustion is related to less dominant behavior and therefore to more effective outcomes, we feel that it should be possible to reduce overly dominant behavior by adequate personnel selection, training, and feedback so that emotional exhaustion does not have to become an asset.

6.8.1 Limitations and Suggestions for Future Research

This study has limitations that should be addressed in future research. First, although we were able to carry out a longitudinal study with police novices, the sample was too small to use in a full latent variable model. Large-scale longitudinal studies would avoid such parameter estimation problems. Second, our results from Study 1 indicate that a model of the consequences of workplace violence and aggression is different for police work than other occupational groups with lower violence risk. However, we do not yet know whether this difference stems from the fact that police work is a high-risk occupation, from aspects of the particular occupational culture (e.g., the widespread view that experiencing fear and expressing strain is a sign of weakness), or from other factors, such as the fact that the danger faced in police work often grows out of hostility (Perrott & Kelloway, 2006). Additionally, the majority of police officers in our sample were male, reflecting the gender composition in this occupation. Future research should test whether our findings can be generalized to samples from high-risk occupational groups with differing occupational cultures, gender compositions, and work settings (e.g., psychiatric nurses), and whether our results can be replicated with samples from U.S. police forces, as the culture and legislation regarding violence and aggression against police officers is different from Switzerland. Third, with regard to the results from Study 1, it should be noted that although we tested and compared several models, further alternative path models exist (MacCallum, Wegener, Uchino, & Fabrigar, 1993). Fourth, in Study 2 we used three-wave longitudinal data that started at a natural zero point (beginning of police academy training) and allowed us to control for psychological well-being at Time 1 and the outcome variables at Time 2, thereby also controlling for the effects of stable third variables (e.g., sociodemographic factors, personality traits, and negative affectivity; Spector, Zapf, Chen, & Frese, 2000). This increases our confidence in the causal ordering of the relationships between variables as suggested. However, the 12-month gap between the waves was too long to expect lagged effects of exposure at T2 on burnout at T3. Instead, we asked about exposure during the year before the survey and resources such as perceived coping ability and mental states at the current time. The perception of stressors may therefore still be affected by strain. We also cannot rule out so-called occasion or mood factors (Dormann & Zapf, 2002; Zapf, Dormann, & Frese, 1996). Future research to establish causality and examine positive feedback loops more closely is needed. Fifth, our studies relied on single-source and self-report questionnaire data, bearing some risk of a common method bias. As official records of workplace violence underestimate the true amount of victimization and an observation study was not feasible, we deemed self-report data the most appropriate measure for exposure to violence and aggression. The same applies to our other measures. Minimal correlations between some of the measured variables and the finding of significant interactions indicate no threat to our results from mono-method bias. Nevertheless, future research might employ additional measures, such as observed exposure to violence and aggression or peer-reported indicators of cynicism, which could be compared to self-reported depersonalization. Furthermore, we tried to improve Mueller and Tschan's (2011) original two-item measure of perceived coping ability by adding a third item, but in our sample of experienced officers, internal consistency of the new scale was so low that we decided to remove the first item and to measure perceived coping ability with the remaining two items. It appears that for experienced police officers (and maybe other professionals from high-risk occupational groups with a lot of job experience), their expectation of being or not being shaken by the experience of client-initiated violence is unrelated to the appraisal of their coping abilities after such an event. This seems to be different for professionals from occupational groups with lower risk of exposure to violence (as in the sample of Mueller & Tschan, 2011) and for professionals from high-risk occupational groups but with less experience (as in our sample of police novices, where the correlation between the items was highly significant). Future research should aim to improve this measure or develop a new measure that captures anticipated self-efficacy with regard to coping with the psychological aftermath of client-initiated workplace violence.

Our findings of beneficial direct and buffering effects of high levels of perceived coping ability generate two research questions: What improves or undermines perceived coping ability in police officers? Is the positive self-evaluation of people's coping ability based on real capabilities or rather on illusions of control or capability? As Bandura

(1983) stated, people might "psych themselves up with inflated judgments of their self-efficacy" (p. 468) when large stakes are involved. It would be interesting to know more about this phenomenon and about what happens when such positive assumptions are shattered or at least relativized by reality (our results revealed higher levels of perceived coping ability in our sample of police novices than in the sample of experienced officers). Further, with regard to depersonalization, the results from our regression analyses in the sample of police novices show the strongest main effect from exposure to psychological aggression (and this is the only relationship that is not buffered by perceived coping ability in the sample of experienced officers). Many comments at the end of the survey of both samples (not reported here) indicate that many participants find it particularly difficult to accept name-calling and verbal abuse (which are not prosecutable under the criminal law in our country). Anderson and Bauer (1987) reported that police officers admitted that on occasions, when civilians had been particularly threatening or insulting, the officers had themselves used nonverbal behavior to provoke physical attacks initiated by the citizens because this allowed the officer to take violent defensive action. Together with the fact that several researchers found psychological aggression to have similar or even worse consequences than minor physical assaults (e.g., Gerberich et al., 2004; Walsh & Clarke, 2003; Winstanley & Whittington, 2002) and the finding that emotional labor (partially) mediated the relationship between customer incivility or patient-instigated mistreatment and emotional exhaustion (Grandey, Foo, Groth, & Goodwin, 2012; Sliter, Jex, Wolford, & McInnerney, 2010).), these results suggest that—at least for police officers trained in self-defense techniques—dealing with nonphysical forms of disrespect and verbal aggression uses more emotional labor than dealing with violent clients, where defense can be acted out physically. Verbal aggression and the experience of hostility by civilians are likely to add to the daily tensions experienced by street patrol officers, which, according to Waters and Ussery (2007), have "a corrosive effect, eroding confidence and wearing away the individual's level of hardiness and resiliency" (p. 175). We therefore recommend the inclusion of measures for emotional labor or emotion regulation into the model and into research on the consequences of workplace violence and aggression in general. We also support Walsh and Clarke's (2003) recommendation for managers and supervisors to acknowledge the potential consequences of incidents that appear to be minor and the distressing nature of verbal abuse.

6.8.2 Practical Implications and Conclusion

Unlike other stressors, the extent of exposure to violence and aggression on the job is difficult to influence by the management of a police force. In a society like ours, where members of the police are no longer perceived as authority figures, and aggression and violence against police officers are increasingly prevalent, we see two ways for police leaders to address this kind of stressor: First, they should acknowledge the toll that exposure to violence, aggression and hostility takes on their employees. It may be part of the job, but it is not appropriate to neglect the issue by declaring it as just "part of the job". Emotion regulation and coping abilities of police officers should be fostered (for example by training designed to develop role separation—a differentiation between oneself and one's occupational role which, unlike depersonalization, allows to retain a positive regard toward the customers—as suggested by Dollard, Dormann, Boyd, Winefield, & Winefield, 2003), resources enhanced, and violence and aggression against police officers should be addressed and condemned, internally and publicly. Second, to reduce assaults, threats, and insults by clients, police officers should be discouraged from provoking violence and aggression or contributing to the escalation of conflicts. This is done by recruiting employees with high social skills, by providing appropriate training, and by the constant reinforcement of norms and attitudes regarding the respectful treatment of civilians and the reasonable use of force. As Kop and Euwema (2001) emphasized, it is also done by preventing police officers from becoming highly stressed or even burned out, as depersonalized police officers tend to behave in a way that leads to a negative interaction pattern with civilians. While some might point to the potential of excluding individuals with traits that might indicate propensities to experience stress and burnout during the staff selection process, we sympathize with Hurrell (1995), who criticized that occupational stress is often viewed as an employee problem and not as an organizational problem.

Our findings show that for police officers, high perceived coping ability is a valuable personal resource that mitigates the impact of violent victimization on well-being. It thereby also reduces the likelihood of generating a vicious circle of violence and hostility between civilians and the police. Organizational stressors might predict strain more straightforwardly, but exposure to workplace violence and aggression, coupled with low coping ability (or severely reduced coping ability after bad experiences), might well be more deleterious. However, such effects are likely to be masked by the majority of officers who profit from high levels of perceived coping ability. Police leaders should aim at enabling police officers to deal with the ever-present threat of physical or psychological harm. One way to achieve this is by trying to foster a healthy, high coping self-efficacy with respect to victimization on the job.

7 Study IV: Exposure to Workplace Violence and Resources related to the Organizational Culture as Predictors of Fear, Depersonalization, and Perceived Coping Ability with Future Violence

To be submitted

Care and Communication about Workplace Victimization as Resources that Mitigate Consequences of Violence and Hostility against Police Officers

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This study investigated factors that might mitigate consequences of citizen-initiated violence and hostility against police officers. Based on two samples of 596 experienced frontline police officers and 112 police novices from different police forces, I used a series of hierarchical regression analyses to identify predictors of three outcome variables of different nature: a) fear of future violence, which has been found to mediate the relationship between exposure to workplace violence or aggression and several consequences; b) perceived coping ability with future violence, which has been found to exert beneficial influences on consequences of workplace victimization in police officers; and c) depersonalization, which has been found to be a particularly detrimental outcome of job-related victimization in police officers as it may initiate a vicious circle, increasing violence and hostility between police officers and citizens. My results replicate earlier findings and extend them, as the study specifically focused on resources related to the organizational climate and culture, such as perceived prevention of violence, stressor-specific support, the talk climate with respect to disturbing experiences in general, and the discussion of client-initiated assaults, threats, and psychological aggression in particular. Practical implications are discussed.

Keywords: client-initiated workplace violence and psychological aggression; fear of future violence; perceived coping ability; depersonalization; police officers

7.1 Introduction

Since the beginning of research on police officers as an occupational group half a century ago, police work has been associated with danger, with exposure to violence on the job (Perrott & Kelloway, 2006). Nevertheless, the extreme rise of violence and hostility against police officers in our country is worrying. In Switzerland, the recorded criminal offences of violence and threats against public authorities and public officials was in 2012—after a rather steady increase over the years since 1997—more than seven times higher than in 1990 (counted from numbers of the Swiss Federal Statistical Office, corrected for the population growth). It has been estimated that—depending on the geographical area—between sixty and ninety percent of victims are members of police forces, and the increase in recorded offences (which underestimate the true amount of offences) corresponds to police officers' perceptions of the problem (Todesco, 2009). Findings from a large-scale research project on violence against police officers in Germany indicate that we are not dealing with a national problem: Ellrich, Baier, and Pfeiffer (2010) stated that violent assaults clearly increased between 2005 and 2009. They not only reported on the physical consequences of assaults, but also on negative psychological impacts, such as sleeping problems, problems with the partner or other people, and an increased use of medication or consumption of alcohol (Ellrich, Baier, & Pfeiffer, 2011). Furthermore, they found significant differences between injured victims of assaults and non-victims regarding the perceived likelihood of future assaults (which they consider to be a cognitive measure of fear), or the self-perception as police officers, namely that victims see themselves less as "guardians of the law" or as "friend and helper", but more often as "scapegoats of a misguided policy" or as "bin men of a sick society" – a dissociation of everyday work that can lead to burnout (Ellrich et al., 2011).

Indeed, Vuorensyrjä and Mälkiä (2011) found threats of violence to predict levels of burnout in Finnish police constables. Mueller and Tschan (2015) found exposure to violence and psychological aggression from citizens to directly and indirectly predict symptoms of burnout in Swiss police officers. Fear of future violence was a mediator, and perceived coping ability with future violence was found to be a predictor of all outcome variables and a moderator of the relationship between exposure to violence and emotional exhaustion. Symptoms of depersonalization were not only found to be a consequence of exposure to violence and aggression on the job, they were also positively related to future violent victimization, indicating a vicious circle of depersonalization and victimization in police officers.

The purpose of the current study is to investigate factors that might mitigate consequences of workplace violence in police officers by reducing fear of future violence and by enhancing perceived coping ability. Furthermore, I explore factors that might reduce levels of depersonalization in police officers, thus breaking the vicious circle of depersonalization and victimization. I specifically focus on resources related to the organizational climate and culture, thus filling several gaps in the research literature.

7.1.1 Fear of Future Violence

Relative to the extensive amount of research on police stress, empirical research addressing fear in police officers is surprisingly scarce. Early comprehensive police studies revealed that police officers react with fear to physically dangerous situations (Jermier, Gaines, & McIntosh, 1989), and anxiety is sometimes measured as a correlate or outcome of police stress(ors) (e.g., Newman & Rucker-Reed, 2004; Storch & Panzarella, 1996), but I found only a few publications that focused on fear experienced by police officers. Gudjonsson (1984) examined whether different levels of occupational experience are differently related to two categories of fears in police officers: fear of failure and negative evaluation, and fear of tissue damage and bodily harm (i.e., the sight of blood, injury, and dead people). Fear of failure increased with seniority, whereas fear of tissue damage was highest in police recruits. Gross (1991) investigated occupational fears—that is, “fears that develop in relation to an individual’s work” (p. 176)—in police recruits. He extracted five dimensions of fear: (a) physical danger, (b) fears related to mutilated or dead bodies, (c) confrontations with unarmed offenders or protesters, (d) fears related to rejection, reprimands or investigations within the organization, and (e) courtroom situations. Situations of physical danger—particularly confrontations with armed offenders—and receiving a death threat from a criminal elicited the highest fear-levels in the participants. Gross noted that while controlled fear might help keeping police officers prepared and safe, officers with intense levels of fears might develop chronic stress reactions, and excessive, uncontrolled fear increases the risk of inappropriate behavior, such as the unjustified use of deadly force. The latter notion was supported by a series of experimental studies of Oudejans and Nieuwenhuys who examined the relationship between anxiety and shooting behavior in police officers (e.g., Nieuwenhuys, Cañal-Bruland, & Oudejans, 2012; Nieuwenhuys & Oudejans, 2010, 2011; Oudejans, 2008). In particular, Nieuwenhuys, Savelsbergh, and Oudejans (2012) found that in a video-based test on shooting decisions, police officers showed a response bias towards shooting in the high- vs. low-anxiety condition, that is, under high-anxiety conditions they shot faster and they accidentally shot significantly more unarmed, surrendering suspects. In the study, the high- vs. low anxiety conditions were manipulated by the experimental design, but the authors concluded that under high anxiety, officers were more inclined to respond on the basis of threat-related interpretations rather than objective information, and it seems likely that the personal propensity to experience anxiety and fear might generate similar effects. Furthermore, perceptions of danger or concern for personal safety have been found to predict emotional exhaustion in police officers (Jermier et al., 1989; McCarty & Skogan, 2012).

Frewin, Stephens, and Tuffin (2006) examined the transcripts of interviews with police officers about attitudes to discussing traumatic aspects of their work and found that the interviewees focused their descriptions of what they experienced during threatening situations on physiological aspects, such as shaking knees, or the adrenalin causing physical symptoms, and even when they used emotion rhetoric, they tended to avoid expressions that suggested that they were fearful. However, they reported about situations in which they felt “apprehensive”, started to “get worried”, or described the situation as getting “hairy”, but they also noted that they would not tell others that they were afraid, as displays of fear are seen as interfering with performance and police duties. Worrall (2013), on the other hand, noted that although fear carries connotations of inadequacy or inferiority, its experience can be—and increasingly is—regarded as skill that, together with suspicion, enables police officers to recognize potentially dangerous or otherwise threatening situations, therefore being part of police officers’ intuition or sixth sense which promotes their safety.

Fear of future workplace violence, which is different from acute fear experienced during a dangerous situation, has repeatedly been predicted by exposure to violence (Barling, Rogers, & Kelloway, 2001; Rogers & Kelloway, 1997; Schat & Kelloway, 2000, 2003), and by the perceived likelihood of future violence, which has been found to mediate the relationship between exposure to violence or aggression and fear (LeBlanc & Kelloway, 2002; Mueller & Tschan, 2011, 2015), and which has been suggested to be the cognitive aspect of fear of future violence (Ellrich et al., 2011). Fear has also been predicted by perceived control (Schat & Kelloway, 2000), by perceived coping ability, and indirectly by perceived prevention of workplace violence (Mueller & Tschan, 2011). Schat & Kelloway (2003) found informational support—operationalized as whether employees had received training on how to deal with aggressive or threatening patients—to be *positively* related to fear, which might be an artifact of organizations offering workplace violence training to those employees most exposed to violence, and those employees most concerned about violence might particularly often participate in such trainings.

7.1.2 Depersonalization

Depersonalization (also called cynicism) is characterized by a distant, cynical attitude toward one's work, and by negative attitudes and feelings about service recipients, which can lead to callous or even dehumanized perception and treatment of others (Maslach & Jackson, 1981; Taris, LeBlanc, Schaufeli, & Schreurs, 2005). It has been suggested and confirmed to be a core dimension of burnout, which is conceptualized as a psychological syndrome in response to chronic emotional and interpersonal stressors on the job, particularly prevalent among human service professionals (Maslach & Jackson, 1981; Maslach, Schaufeli, & Leiter, 2001). Another core dimension is emotional exhaustion, which refers to feelings of being overextended and depleted of one's emotional and/or physical resources; a third dimension is the feeling of reduced efficacy and dissatisfaction with one's accomplishments on the job (Maslach & Jackson, 1981, Maslach et al., 2001). There is an abundance of studies that linked burnout to negative outcomes, such as physical and mental health problems, substance abuse, and chronic diseases on the individual level, as well as reduced job satisfaction and commitment, absenteeism, turnover, and impaired job performance on the organizational level (in various occupational groups, see Lee & Ashforth, 1996, and

Taris, 2006, for reviews; and in police officers, e.g. Golembiewski, Lloyd, Scherb, & Munzenrider, 1992; Martinussen, Richardsen, & Burke, 2007; Houdmont, 2012).

Several studies on burnout among police officers showed a pattern regarding the core dimensions which differs from other human service professions as well as non-service occupations: While usually the levels of emotional exhaustion are higher than the levels of depersonalization (e.g., Lee & Ashforth, 1990; Lindblom, Linton, Fedeli, & Bryngelsson, 2006; Taris, LeBlanc et al., 2005; Taris, Stoffelsen, Bakker, Schaufeli, & van Dierendonck, 2005), so that emotional exhaustion has been suggested to be a precursor of depersonalization (Lee & Ashforth, 1993; Leiter & Maslach, 1988; Maslach et al., 2001; Taris. LeBlanc et al. 2005), this is often reversed in police samples (e.g., Euwema, Kop, & Bakker, 2004; Hawkins, 2001; Kop, Euwema, & Schaufeli, 1999; Kop & Euwema, 2001; Martinussen et al., 2007). In order to function effectively on the job—particularly in occupations in which one is frequently confronted with injured, suffering, dying or dead people, and other emotionally disturbing events—moderating one's compassion for clients is often viewed as necessary (e.g., Maslach et al. 2001). Excessive detachment, however, might lead to a cynical, depersonalizing worldview, and it has been suggested that this form of defensive coping is widespread among police officers and protects them, at least to a certain degree or for some time, from the other aspects of burnout (Schaible & Gecas, 2010). There is, as Kop and Euwema (2001) pointed out, "a thin line between healthy coping practices and unhealthy depersonalization" (p. 649).

Kop et al. (1999) and Kop and Euwema (2001) have elaborated that burnout—depersonalization in particular—is not only a health or performance issue for the effected police officer and his employer, but that the detached, cynical attitude toward civilians, which is indicative of depersonalization, bears the risk of an undue use of force, which can lead to a vicious circle of hostility and violence between the police and the public. Depersonalization levels repeatedly predicted police officers' attitudes towards the use of violence (Burke & Mikkelsen, 2005, Kop et al., 1999; Kop & Euwema, 2001), as well as their actual use of violence, hostile attitudes toward civilians, and attitudes toward the use of social skills (Kop et al., 1999; Kop & Euwema, 2001). As the police exercise the state's monopoly on the legitimate use of force, it is of particular importance that inadequate treatment of civilians by depersonalized officers can be avoided. Moreover, recent research also demonstrated that higher levels of depersonalization in police officers are predictive of more *exposure* to client-initiated violence one year later (Mueller & Tschan, 2015), confirming the notion of a vicious circle which also increases victimization of police officers.

Depersonalization scores have mostly been found to be higher in younger than in older people, but as age is confounded with work experience and most burnout studies used cross-sectional or short-term longitudinal data, this does not necessarily reflect intra-individual declines in depersonalization levels, but might result from a survival bias, meaning that people who have difficulty in coping with the demands of the job may leave the profession entirely at an earlier age, leaving behind the persons with lower levels of burnout (Maslach & Jackson, 1981; Maslach et al, 2001). While findings regarding the relationship between burnout in general and gender are inconsistent, a small but consistent difference was found with respect to depersonalization, with higher scores reported from males than from females (Maslach & Jackson, 1981; Maslach et al., 2001). This has been interpreted to be in line with gender stereotypes, or related to the fact that gender is often confounded with occupation (e.g., more males working in law enforcement, more females in nursing). Personality characteristics that have been suggested to be typical for stress-prone individuals, such as low levels of hardiness, poor self-esteem, an external locus of control, and an avoidant coping style (Semmer, 2003), have been found related to higher levels of burnout (Maslach et al., 2001). Maslach (1982, cited from Stearns & Moore, 1993) found individuals who are unable to express or control their emotions to be more prone to burnout. Generally, the relationships between burnout and individual characteristics have been found to be weaker than the relationships between burnout and situational factors. Workload, time pressure, qualitative job demands, such as role conflict, role ambiguity, and emotion-work variables (particularly emotional dissonance; Bakker & Heuven, 2006), as well as the absence of job resources, such as information, control, and especially social support, have repeatedly been found to be linked to burnout (e.g., Lindblom et al., 2006; Maslach et al., 2001; Lee & Ashforth, 1996; Taris, Stoffelsen et al., 2005). A newer model includes situational and organizational characteristics and focuses on the match—or mismatch—between the person and his or her job with respect to six domains of worklife (workload, control, reward, community, fairness, and values) and posits that chronic mismatches lead to burnout, which in turn leads to negative outcomes (Maslach & Leiter, 1997). The resources I will explore in this study can be related to these work domains, community (social support & talk climate) and fairness (prevention of workplace violence) in particular.

With regard to depersonalization in police officers, Cannizzo and Liu (1995) found a curvilinear relationship between job tenure and burnout. In the sample of Backteman-Erlanson, Padyab, and Brulin, (2013), age was negatively correlated to depersonalization, while Martinussen et al. (2007) found no age differences. Some researchers found lower levels of depersonalization in female officers (e.g. Backteman-Erlanson et al., 2013; Hawkins, 2001), but many found no significant gender differences (e.g., Kop et al., 1999; Martinussen et al., 2007; Stearns & Moore, 1993). Kop et al. (1999) found perceived lack of reciprocity from the organization, from colleagues, and particularly from citizens to predict depersonalization. Martinussen et al. (2007) found leadership responsibilities and social support to negatively predict cynicism, while work-family pressures were positively related. In Houdmont's (2012) large sample, depersonalized police officers reported significantly higher levels of job demands, more role ambiguity and conflict, less control, and less management and peer support. Manzoni and Eisner (2006) found the job profile (the frequency of police activities holding a potential for conflict) to predict depersonalization, as well as officers' victimization and the use of force. Mueller and Tschan (2015) found exposure to client-initiated violence and aggression, as well as perceived coping ability with future violence, to predict depersonalization. In the last decade, several researchers examined the relationship between emotion work and burnout in police officers. Emotion work (or emotional labor) refers to the psychological efforts necessary to display organizationally desired emotions during interpersonal transactions (e.g., Morris & Feldman, 1996; Zapf, Vogt, Seifert, Mertini, & Isic, 1999). In police work, this means the suppression of felt emotions such as anger, fear, or disgust, the expression of positive emotions, and the requirement to be sensitive to clients' emotions (e.g. victims) or to show sympathy (e.g. death notifications). Bakker and Heuven (2006) found emotional dissonance (the discrepancy between true and displayed emotions) to be significantly and positively related to cynicism. Schaible and Gecas (2010) found emotion management variables to have significant direct effects (deep acting) or interaction effects with value dissonance (surface acting) in predicting depersonalization. Backteman-Erlanson et al.

(2012) found stress of conscience (the frequency of stressful situations that include feelings of troubled conscience related to work, such as when oneself or someone else treats clients in a way that feels wrong) to predict depersonalization. In sum, most studies focused on the relationship between job demands or demographic variables and depersonalization in police officers, the examination of personal and organizational resources—apart from social support—is scarce. The current study wants to fill this gap.

7.1.3 Perceived Coping Ability with Future Victimization

Mueller and Tschan (2011) first suggested and tested perceived coping ability with future client-initiated violence as a variable in a model of the consequences of workplace violence. It captures the extent to which someone is optimistic or pessimistic regarding his or her efficacy to cope with future victimization and its psychological aftermath. It is related to other beliefs that have been found to be valuable resources when dealing with stressors, such as seeing challenges rather than threats (hardiness), being optimistic and assuming that—if necessary—one can overcome difficulties (self-efficacy), or expecting people and their intentions to be benign instead of hostile (Semmer, McGrath, & Beehr, 2005). As perceived coping ability is a belief, it does not necessarily reflect actual coping skills, and it is conceptually different from coping. In this study, I investigate perceived coping ability as predictor variable, that is, as a personal resource that might reduce fear and depersonalization, but also as an outcome variable, because I am interested in factors that might strengthen this resource.

Mueller and Tschan (2011) found perceived coping ability with future violence to be predicted by perceived prevention of workplace violence. To my knowledge, there is no other research on predictor variables regarding Mueller and Tschan's conception of perceived coping ability. There are, however, findings in related areas. Coping self-efficacy (e.g., Bandura, 1997) appears to be the concept most closely related to perceived coping ability. Trauma-specific coping self-efficacy is “the belief in one's own ability to manage posttraumatic recovery demands” (Benight, Cieslak, Molton, & Johnson, 2008, p. 678), but unlike perceived coping ability with future violence, it is usually measured after the potentially traumatic event has taken place. Research has mainly focused on its association with favorable outcomes in a variety of trauma-settings (Benight & Bandura, 2004; Lambert, Benight, Harrison, & Cieslak, 2012), whereas sources of such positive self-beliefs have been disregarded and remain largely unknown, although some evidence indicates that mastery experiences during previous exposure and vicarious experience modify self-efficacy (e.g., Luszczynska, Benight, & Cieslak, 2009; Bandura, 1997), that social support raises perceived self-efficacy to manage environmental demands (Benight & Bandura, 2004), and that social support and dispositional optimism are correlates of hurricane coping self-efficacy (Benight, Swift, Sanger, Smith, & Zeppelin, 1999). In his article on a conceptual model for coping with police stress, Anshel (2000) discussed several personal dispositions that influence coping. I consider some of them, such as self-confidence, dispositional optimism, and hardiness (as proposed by Kobasa, 1979) as related to the concept of perceived coping ability. The latter, however, is very specifically focused on dealing with violent encounters on the job, and more amenable to change after specific experiences than the broader, trait-like concepts of self-confidence, optimism, and hardiness. Another related but more general concept, sense of coherence, SOC, as originally introduced by Antonovsky (e.g., 1987), was not included in Anshel's model, but acted as a mediator (but not as a moderator) of relationships between workplace violence and strain in a large sample of the Danish workforce (Hogh & Mikkelsen, 2005).

7.2 The Present Study and the Context of the Police Culture

In the current study, I suggest and investigate factors that might reduce fear of future violence, enhance perceived coping ability, and decrease levels of depersonalization in police officers. As I consider it the responsibility and—hopefully—the interest of police leaders to protect their employees and to reduce the occurrence and consequences of workplace victimization, I focus on resources within or under the influence of the organization, that is, I specifically focus on aspects of the organizational climate and culture. The existence of a particular occupational culture within police forces has been documented repeatedly (Foster, 2003; Loftus, 2010; Reiner, 1992, 1997). The concept of police subculture refers to informal occupational norms and values informing (rank-and-file) police officers' conduct, but it is only loosely defined in the criminological literature and has been criticized as too homogeneous, deterministic and unchanging (e.g., Chan, 1996; Foster, 2003; Paoline, 2004), and as too malign (Waddington, 1999). A suspicious and cynical view of the world, and a strong sense of internal solidarity coupled with social isolation, are among often cited characteristics of street cop culture, resulting from the dangers of police work (including the danger of taking action that is judged improper; Waddington, 1999) and the tensions of the police role (see, for example, Reiner, 1992, 1997; Skolnick, 1966). Other emphasized features of the cop culture are a sense of mission, moral/social conservatism, and machismo or a cult of masculinity. Professional conduct norms require officers to control their emotions when in contact with clients, but the suppression of emotions often generalizes beyond encounters with the public, rendering police officers unable to reveal and discuss feelings with fellow officers, for fear of being seen as inadequate for the job and as weak (e.g., Pogrebin & Poole, 1991; Reiser & Geiger, 1984). Even if emotional disclosure is contemporarily recognized as healthy, a discourse of unspeakable emotions, in which emotions are framed as a threat to performance and as demanding control, prevails in many police units and silences legitimate emotional responses such as fear of dangerous assailants (Howard, Tuffin, & Stephens, 2000). Within this context, I suggest several resources that might influence fear of future violence, depersonalization, and perceived coping ability with future violence, namely perceived prevention of workplace violence, social support related to workplace victimization, the talk climate regarding emotionally upsetting experiences, the discussion of workplace victimization, and attitudes towards emotional expression. I investigate whether these factors exert influence after taking into account exposure to workplace violence and aggression, and in the case of fear and depersonalization, after taking into account levels of perceived coping ability with future violence.

7.2.1.1 Exposure to Workplace Violence and Psychological Aggression

There are many different definitions of workplace violence and workplace aggression, terms that are sometimes even used interchangeably (Chappell & Di Martino, 2000; Schat & Kelloway, 2005). In some definitions, workplace violence (or workplace aggression) includes any behavior that might lead to physical or psychological harm and is related to the victim's work (Mayhew & Chappell, 2007). I prefer to differentiate between behavior that harms or threatens someone's physical integrity, and behavior that exclusively causes emotional or psychological damage. Thus, I define workplace violence as physical assaults, verbal threats of physical harm (including death), or threatening behavior—behavior that give employees cause to believe that they are at risk of physical harm—directed against persons in the course of, or as direct results of, their work. I define psychological aggression in the work context as verbal abuse, gestural insults and hostile behavior that does not include physical violence or threats of violence. My study is restricted to violence or psychological aggression from citizens that are recipients or objects of services provided by the police, which is why these incidents have been called client-initiated violence and aggression (Mueller & Tschan, 2015).

Exposure to workplace violence and/or psychological aggression has repeatedly and in various occupational groups been found to be related to negative outcomes, whether physical, psychological (e.g., posttraumatic stress disorder, depression, anxiety, burnout, distress, mental health problems), emotional (e.g., anger, frustration, sadness, fear), social, or related to work functioning (including sick leave, job performance, job satisfaction, turnover and turnover intentions; for reviews or overviews see Barling, 1996; Hershcovis & Barling, 2010; Hogh & Viitasara, 2005; Lanctôt & Guay, 2014; Needham, Abderhalden, Halfens, Fischer, & Dassen, 2005). In models of the consequences of workplace violence, victimization was found to be positively related to fear of future violence, either directly (Barling et al., 2001; Rogers & Kelloway, 1997; Schat & Kelloway, 2000, 2003) or mediated by the perceived likelihood of future violence (LeBlanc & Kelloway, 2002; Mueller & Tschan, 2011), which is why I expect to find both types of victimization to be positively related to fear. Workplace victimization has been found to predict symptoms of burnout in police officers either directly (Vuorensyrjä & Mälkiä, 2011; Mueller & Tschan, 2015) or indirectly (Manzoni & Eisner, 2006), which is why I expect to replicate these results with respect to depersonalization. The relationship between victimization on the job and perceived coping ability with future violence has, to my knowledge, not specifically been investigated so far, but exposure to workplace violence was not significantly correlated to perceived coping ability in the study of Mueller & Tschan (2011). However, for job novices in particular, I assume that the experience of workplace violence might improve their perceived coping ability if the support they receive—together with personal resources—allows for successful coping processes. This is in line with the above mentioned role of mastery experiences (Bandura, 1997), and with the notion of Semmer et al. (2005) that negative experiences do not automatically cause negative consequences, as they may elicit effective coping strategies and/or enhance self-confidence and self-efficacy. The controlled provocation of stressful situations which can be successfully resolved is part of many approaches to stress management and psychotherapies (ibid.). Law, Logan, and Baron (1994) reported that stress inoculation training manipulations had no effect prior to the confrontation with the stressor, so that they assumed that subjects need to apply particular coping resources ‘under fire’ in order to gain confidence in them. Accordingly, the extent of police officers’ job experience was found to influence their beliefs that they could cope with stressful job experiences (Anshel, Robertson, & Caputi, 1997). Exposure to psychological aggression, on the other hand, increases perceptions of hostility of citizens while providing no coping experience with respect to violence, which is why I do not expect any favorable, but rather adverse effects on perceived coping ability with future violence on the job.

7.2.1.2 Perceived Prevention of Workplace Violence

Perceived prevention of workplace violence has been found to predict perceived coping ability with future violence and to indirectly influence fear of future violence and consequently physical and psychological well-being in a sample of job center and social security office staff (Mueller & Tschan, 2011). A similar concept, the perceived violence climate (which captures the availability of violence training, violence policies and procedures, encouragement to report violence, and management attitudes and support concerning violence), was found to be negatively related to exposure to violence and aggression and to negatively predict perceived danger, anxiety and depression beyond victimization in veterans' hospital nurses (Spector, Coulter, Stockwell, & Matz, 2007). Security measures in schools (Sinclair, Martin, & Croll, 2002) or violence prevention training to increase perceived control in healthcare staff (Schat & Kelloway, 2000) were negatively related to negative consequences in low- and medium-risk occupational groups.

There are several mechanism by which prevention of workplace violence might exert beneficial influences (e.g., Sinclair et al., 2002): First, preventive measures might reduce the likelihood that workplace violence occurs; in low- and medium-risk occupations security measures might reduce the risk of victimization for the individual considerably, so that this threat is not salient and consequently fear-levels are low and negative outcomes rare. Second, personal and organizational preparation for critical situations related to aggressive or violent behavior (e.g., combinations of training, secure practices, alarm options) might reduce feelings of vulnerability and therefore affect the level of threat experienced by employees. Third, prevention programs might include measures to alleviate consequences in the aftermath of violent incidents, which might strengthen the employees' perceived ability to cope with victimization. Beyond the reduction of the occurrence of workplace violence or of the harm resulting from violent encounters, adequate violence prevention conveys two important messages from the management: (a) violence is unacceptable, addressed and taken seriously; and (b) the management cares for the safety and health of its employees. A lack of adequate violence prevention can be perceived by the employee as a violation of the employer's duty of care, as a breach of the psychological contract, which refers to an employee's beliefs regarding reciprocal exchange agreements between him- or herself and his or her employer (Rousseau, 1989), and it can be experienced as inequity, which might lead to negative outcomes, such as decreased commitment and dedication (van Emmerik, Euwema, & Bakker, 2007).

7.2.1.3 Social Support

Mutual support is of particular importance in potentially dangerous occupations, such as in police work, but social support has generally been found to be a crucial resource in stressful situations as well as following traumatic events (e.g., Hurrell, 2006; Janoff-Bulman, 1992). Social support in various conceptualizations has been extensively investigated in work stress research, for example within the Job Demand-Control Support model (JDCS, Johnson & Hall, 1988) or the Job Demands-Resources Model (JD-R, Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). It has repeatedly been found to be a valuable resource for coping with work demands, showing beneficial effects on several strain or engagement/motivation variables (e.g., Brough et al., 2013; de Jonge, Janseen, & Van Breukelen, 1996; de Lange, Taris, Kompier, Houtman, & Bongers, 2003; Häusser, Mojzisch, Niesel, & Schulz-Hardt, 2010; van Emmerik et al, 2007), even if results regarding the buffer hypothesis—the assumption that high levels of social support protect individuals from the negative effects of high levels of stressors (or at least that the impact is lessened)—are inconsistent (e.g., Beehr, 1995; de Lange et al., 2003; Dormann & Zapf, 1999; Frese, 1999; Häusser et al., 2010). Two main stress-buffering mechanisms have been suggested: (a) social support may influence whether or to what extent an event (a stressor) is perceived as threatening and taxing one's resources, that is, perceived support by others may reduce the potential for harm posed by a situation and/or it strengthens one's perceived ability to cope with the situation (primary and secondary appraisal according to Lazarus and Folkman, 1984); and (b) social support may intervene between the experience of stress and negative consequences (strain) by reappraisal, inhibition of maladaptive and facilitation of adaptive responses (Cohen & Wills, 1985). The relevance of the match between the type of support and the specific needs elicited by stressful events has been emphasized repeatedly, meaning also that different sources of support generate differential effects, depending upon the particular stressor and coping requirements (e.g., Cohen & Wills, 1985; Frese, 1999; Stephens & Long, 1999).

Social support has also been found to be an important resource following traumatic events (e.g., in combat, natural disasters) and, specifically, supervisor and non-work support has been found to have negative main effects and peer support has been found to have a buffering effect regarding posttraumatic stress disorder (PTSD) symptoms in police officers exposed to workplace trauma (Stephens & Long, 1999). Stephens, Long, and Miller (1997) suggested that emotional social support is essential in occupations in which the risk of traumatic experiences is high, and support from within the organization might be of particular importance for police officers, who often refrain from talking with organizational outsiders about job-specific stressors.

A few researchers tested the moderating role of support with respect to consequences of client-initiated workplace violence: Driscoll, Worthington, and Hurrell (1995) found favorable effects of social support on depression, anxiety, job satisfaction and self-esteem, as well as a significant interaction between physical assault and social support (from colleagues and supervisors) in relation to depression for public service employees. Leather, Lawrence, Beale, Cox, and Dickson (1998) reported that perceived intra-organizational support buffered the effect of pub licensees' exposure to work-related violence with regard to well-being, job satisfaction and organizational commitment. Schat and Kelloway (2003) found instrumental support, provided by members of the organization, to moderate the effects of workplace victimization on emotional well-being, somatic health, and job-related affect in a health care setting. In Brough's (2005) sample of paramedics, supervisor support significantly moderated the relationship between exposure to verbal violence and psychological strain. The direction of the relationship, however, was unexpected insofar as the impact of verbal violence was stronger for paramedics who reported higher levels of supervisor support (so-called reverse buffering or enhancer effect). As Brough used a cross-sectional design, it might be that paramedics who felt particularly affected by verbal violence requested and consequently received more support than paramedics who took verbal aggression more lightly, leading to this counterintuitive result. Van Emmerik et al. (2007) found peer support to buffer the negative effects of threats of physical violence at the unit level on affective organizational commitment as well as on dedication in a large sample of constabulary officers.

The provision of adequate support and assistance following workplace victimization is a form of tertiary prevention that may improve employees' capability to cope with the risk of future violence (Viitasara, 2004), and co-worker support was found to predict fear of becoming a victim of workplace violence in a sample representative of the U.S. population of full-time workers (Cole, Grubb, Sauter, Swanson, & Lawless, 1997). The opportunity to discuss traumatic or other distressing events with others who have shared the same or similar experiences has been suggested to be a specific aspect of social support and a natural coping mechanism (Stephens & Long, 2000). Whether and to what extent it is possible to do so will not only depend on the willingness of individuals to provide support in general, but also on the talk climate within the team and on the persons' attitudes towards emotional expression.

7.2.1.4 Talk Climate and Attitudes towards Emotional Expression

As Foster (2003) stated, police recruits quickly learn that for their practical and emotional survival on the job it is crucial to become an accepted team member. Acceptance means that the colleagues will be strongly motivated to provide help in dangerous, sometimes life-threatening situations, as well as emotional support and companionship during the day-to-day work. In the police academy, and particularly during field training, police recruits are socialized into the police subculture, and results from a recent study suggest that police officers who perceive themselves as part of the subculture (the in-group) experience less occupational stress than officers who are part of the out-group (Rose & Unnithan, 2015). For police novices, the need to belong will lead to a bottling-up of emotions if they find themselves in a group which views emotions as a disruptive factor and the communication of feelings as a sign of weakness. But this might have deleterious effects, as reports from clinical work with survivors of disasters as well as findings from research on victims of road accidents suggest that negative attitudes toward the expression of emotions increase the risk for and maintenance of psychiatric symptoms (Joseph, Williams, Irwing, & Cammock, 1994; Nightingale & Williams, 2000), and practitioners working with trauma victims consider talking about the incident and the experienced emotions as particularly important for relieving post-traumatic anxiety (van der Kolk, 1988). It has even been suggested that in some cases "the act of *not* discussing or confiding the event with another may be more damaging than having experienced the event *per se*" (Pennebaker, 1985, p. 82). Stephens and Long's (1999, 2000) research on traumatic stress in police officers indicates that the bottling-up of emotions has negative consequences, while confiding in others mitigates the effects of exposure to traumatic incidents. Their research was based on Horowitz' (1993) model of traumatic stress and the development of PTSD, which proposes phases of response to a traumatic experience and emphasizes the importance of processing—of "working through"—the traumatic experience, which includes talking about the traumatic incident and its related emotions so that the experience can be assimilated (Stephens & Long, 1999, 2000). The role of disclosure of traumatic experiences with respect to health outcomes was supported by several experimental studies by Pennebaker and colleages, who originally suggested that the active inhibition of the need to talk about traumatic experiences and the expression of emotions places stress on the body, leading to negative health outcomes, but later focused on the positive effects of disclosure on cognitive processes, as by talking or writing about the trauma, individuals may assimilate, reframe, or find meaning in the event, which is in accordance with Horowitz' model (e.g., Pennebaker, 1997; Pennebaker, Kiecolt-Glaser, & Glaser, 1988). Howard et al. (2000) identified contradictory accounts with respect to emotional disclosure among police officers: the same individuals characterized the police force as being increasingly open to expression and discussion of emotions, but stated that not many policemen would talk about fear and/or admit to having been afraid in a fear-provoking situation. If emotions are disclosed at all, police officers consider very carefully with whom emotions can be discussed, and trust that a colleague will maintain confidentiality seems imperative, indicating that the decision to confide carries a risk, for example for one's reputation and perceived competence (ibid.).

Of course, not all incidents that may tax police officers' resources are traumatic in character. But operational stressors, such as exposure to violence and hostility, are largely not controllable, meaning that problem-focused coping options (i.e., attempts to alter the source of the stressful encounter; Lazarus & Folkman, 1984) are very limited or even unavailable for police officers, leaving emotion oriented strategies (i.e., efforts to palliate negative emotions elicited by the situation) as the main avenue of coping (e.g., Hurrell, 1995). Emotion-focused coping has repeatedly been related to adverse effects, but a closer examination of the operationalization of this type of coping revealed that most measures of emotion-focused coping were contaminated by distress-laden content, thus measuring distress or the inability to regulate one's emotions rather than coping (Semmer, 2003; Stanton, Kirk, Cameron, & Danoff-Burg, 2000). Alternative measures yield different results: Beehr, Johnson, and Nieva (1995), for example, used a short uncontaminated measure of coping techniques and found cognitive emotion-focused activities to be most consistently negatively related to several types of strains in police officers. Stanton et al. (2000) developed new measures of emotional approach coping (i.e., emotional processing and emotional expression) and concluded, based on a study on young adults with parents suffering from a chronic physical or psychological disorder, that coping through emotional expression is adaptive for both men and women, but that it may be less useful in a context where intrapersonal or social factors promote emotional suppression. In a sample of English police officers high (vs. low) negative attitudes towards emotional expression were highly significantly associated with higher levels of psychological distress, and under conditions of both low and high operational stressor exposure, officers with a combination of lack of social support, high negative attitudes towards emotional expression and low just world beliefs reported particularly high levels of distress (Brown & Grover, 1998).

I expect that the emotion culture, and in particular the talk climate with respect to stressful experiences and elicited emotions, influences the individuals perceived coping ability in two ways: First, I assume that many police officers intuitively know what Stephens and Long (1999) confirmed in their study of New Zealand police officers, namely that a positive attitude to expressing emotion as well as emotional support from peers moderated the relationship between exposure to trauma and symptoms of posttraumatic stress disorder (PTSD). Second, an open talk climate indicates that having emotions and expressing them after a stressful event does not violate group norms and does not lead to a withdrawal of acceptance and, consequently, support from colleagues. In such a climate, officers might well be more optimistic about their ability to successfully cope with victimization than in a climate where only the seemingly fearless, emotionless prevail – and where making jokes is the only accepted way of talking about threatening or tragic events, the only “safe” emotional outlet (Howard et al., 2000; Pogrebin & Poole, 1991; Stephens & Long, 1999). Moreover, I consider the communication about stressful experiences with understanding colleagues or supervisors as an active way of coping which might reduce defensive coping and, thus, depersonalization.

Based on these findings and theoretical arguments, I posit the following hypotheses:

> Hypothesis 1: Fear of future violence will be (a) positively predicted by workplace victimization (exposure to violence and psychological aggression), (b) negatively predicted by perceived coping ability, and (c) negatively predicted by care and communication factors (i.e., perceived prevention, perceived support, talk climate, discussion of workplace victimization).
>
> Hypothesis 2: Depersonalization will be (a) positively predicted by workplace victimization (exposure to violence and psychological aggression), (b) negatively predicted by perceived coping ability, (c) negatively predicted by care and communication factors (i.e., perceived prevention, perceived support, talk climate, discussion of workplace victimization), and (d) positively predicted by negative attitudes toward emotional expression.
>
> Hypothesis 3: Perceived coping ability with future violence will be (a) positively predicted by exposure to workplace violence, (b) negatively predicted by exposure to psychological aggression, and (c) positively predicted by care and communication factors (i.e., perceived prevention, perceived support, talk climate, discussion of workplace victimization).

7.3 Method

This paper reports secondary analyses of data from more encompassing surveys about workplace violence in three Swiss police corps, conceptualized and carried out by the author. Sample characteristics and some of the measures have been described in Mueller and Tschan (2015), who suggested and tested a model of the consequences of high levels of workplace violence based on the same data set without looking at organizational climate and culture variables.

7.3.1 Participants and Procedure

The participants in sample 1 were 596 frontline police officers with a broad range of job experience, subsequently called ‘experienced officers’. They were from two corps serving populations of 370’000 and 260’000 inhabitants living in cities (with up to 80’000 or 17’000 inhabitants, respectively) and rural areas. An email containing my information about the study, guaranteed anonymity, permission to participate during working hours, and a link to an online questionnaire was sent by the management to all frontline staff (974 police officers in total). The response rate was 61%. The majority of the participants were men (82%). Some participants provided no further demographic data (8%), among the others, 22% were up to 29 years old, 44% were between 30 and 39 years old, 21% were 40-49 years old, and 13% were older. Job experience varied widely: 8% were novices with up to one year of job experience after graduation from the police academy, 43% had 2-9 years of experience, and 49% had 10 or more years of experience. I was not able to gather the necessary information to carry out a non-response analysis.

Sample 2 consisted of 112 police novices, namely officers with one year experience of full professional duties (after graduation from the two-year police officer academy and training) in an urban police force working in a city with nearly 390’000 inhabitants. German paper-and-pencil questionnaires, with free return envelopes addressed to the author, were distributed by the internal mail system of the police force to all former members of six police academy classes (as all police novices were contacted exactly one year after graduation from the police academy, data collection spread over two years). Enclosed were two letters, one for potential participants and one for supervisors. Both explained the purpose of the study, emphasized the support of the management, and while the one for participants guaranteed anonymity, the one for supervisors asked them to permit their subordinates’ survey participation during working hours. Participation was voluntary, the response rate was 82%. The majority of the participants were men (78%) and between 25 and 29 years old (68%), 9% were younger, 20% were between 30 and 34 years old, and 4% were older. Organizational tenure was three years for all. Respondents did not differ in gender or age-group from non-respondents.

7.3.2 Measures

Questionnaires and all measures were in German language; where not stated otherwise, I used pre-existing German measures or translations.

Fear of future workplace violence. Fear was measured using the three-item measure of Mueller and Tschan (2015), originally based on a measure of Rogers and Kelloway (1997). Due to the cop culture, police officers might hesitate to admit to being fearful or afraid (see above), and are therefore asked about *worries* with respect to physical assaults by clients, assaults or threats with a weapon, and worries about being injured by a client (e.g., "I sometimes worry about being physically assaulted while on duty"). The items were rated along a 7-point Likert scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Internal consistency was $\alpha = .95$ in sample 1 and $\alpha = .94$ in sample 2.

Depersonalization. Depersonalization was measured using a subscale of the Maslach Burnout Inventory (Maslach & Jackson, 1981) in a German version of Büssing and Perrar (1992). The answering format was a six-point scale (*never, a few times a year, about once a month, several times a month*, *several times a week, every day,* internal consistency was $\alpha = .63$ in sample 1 and $\alpha = .58$ in sample 2.

Perceived coping ability with future workplace violence. The two-item measure of Mueller and Tschan (2015) was used to assess the perceived coping ability of respondents ($r = .48$, $p = .000$ in sample 1, and $r = .61$, $p = .000$ in sample 2). The items were rated along a 7-point Likert scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The items were: "I consider myself to be able to cope well after an assault by a customer/client" and "Whatever happens to me when dealing with clients, I can rely on my coping abilities".

Exposure to client-initiated workplace violence. The occurrence of physical assaults and threats in the year proceeding the survey was assessed with the ten-item-index of Mueller and Tschan (2015), which was based on Baitsch's (2003) list of direct and subtle violence against police officers and paramedics. The ten items covered physical assaults with a weapon, physical assaults without a weapon (with/without danger of injury), immediate threats with a weapon, attempts to be run over by car, dog attacks commanded by a person, witnessed physical assaults or use of weapons against a teammate, massive verbal threats against the own person, serious threats against the officer's family, and confrontations with a group of aggressive people. Participants were asked to count the incidents since their graduation from the police academy (i.e., during the last twelve months), the answer format was a 6-point scale, ranging from 1 (*never*), 2 (*once*), 3 (*two-three times*), 4 (*four-six*), 5 (*seven-twelve times*), to 6 (*more than twelve times*). Internal consistency was α = .85 in sample 1 and α = .72 in sample 2.

Exposure to psychological aggression by clients. The eight-item-index of Mueller and Tschan (2015), also based on Baitsch (2003), was used to assess the frequency of exposure to psychological aggression and hostility in the preceding year. The eight items covered verbal insults, gestural insults, being spat at, being ignored when attempting to make contact, being ignored when giving orders, being touched in a disrespectful (but not violent) way by clients, sexual harassment by words or gestures, and unjustified complaints. Items were rated using a 5-point frequency scale, ranging from 1 (*less than once a month*), 2 (*approx. once a month*), 3 (*several times a month*), 4 (*several times a week*), to 5 (*(almost) daily*). Internal consistency was α = .82 in sample 1 and α = .76 in sample 2.

Perceived prevention of workplace violence. All four items from a scale developed by Mueller and Tschan (2011; α = .82) were used as indicators of the respondents' subjective assessment of how well the employer cares for adequate prevention of client-initiated violence and for reaction plans to reduce harmful consequences if preventive measures fail. The items were rated along a 7-point Likert scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Internal consistency was α = .67 in sample 1 and α = .78 in sample 2.

Perceived support with respect to workplace violence. To measure whether respondents expect support from colleagues, supervisors, or the management in case of exposure to violence or threats from clients, we translated and slightly adapted the item wordings of Schat and Kelloway's (2003) measure of instrumental support (e.g., "In case of violence or threats from clients, I can rely on support from my colleagues."). The three items were rated on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). As support from the three different sources was differently related to the outcome variables under investigation, I used the three items as single-item measures.

Talk climate. A six-item scale, in terms of content related to the peer/supervisor communication about disturbing experiences subscale of Stephens and Long (2000), was developed for the present study to assess how participants perceive the climate to talk about distressing operational experiences. Items were rated on a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*). The six items were subjected to a principal component analysis with oblique rotation (direct oblimin). In both samples, two factors were extracted which cumulatively explained 76% or 73% of the item variance, respectively. The first factor captured the talk climate with supervisors (α = .91 in sample 1; α = .90 in sample 2), the second the talk climate with colleagues (α = .73 in sample 1; α = .68 in sample 2). The composite scale had an internal consistency of α = .83 in sample 1, and α = .82 in sample 2. All items, translated from German to English, and the pattern matrices for both samples are displayed in Table 10.

Table 10: Exploratory factor analysis of six items assessing talk climate (principal component analysis with oblimin rotation)

Item	Experienced Police Officers (N = 588)		Police Novices (N = 112)	
	Factor 1	Factor 2	Factor 1	Factor 2
My supervisor encourages me to discuss distressing experiences with him/her.	.941		.917	
Supervisors devote enough time to talks after unpleasant assignments.	.938		.912	
After returning from a disturbing assignment, I can have a good talk about it with my supervisor.	.878		.897	
Among peers we discuss upsetting experiences.		.835		.584
At work, there is at least one colleague with whom I talk unreservedly about terrifying experiences or situations that made me feel helpless.		.810		.871
After returning from an unpleasant assignment, there are always colleagues with whom one can talk well about it.		.800		.821

Discussion of workplace victimization (WPV). I used a single item to inquire whether respondents perceived that victimization on the job is a topic of discussion within the corps or unit. The item which translates to “In our organization we talk openly about experiences with client-initiated violence, threats and aggression” was rated along a 7-point Likert scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Negative attitudes towards emotional expression. In sample 2, the questionnaire contained an eight-item measure of attitudes towards emotional expression, which was a short form of the twenty-item measure developed by Joseph et al. (1994). I chose two items from each of the four original factors “beliefs about meaning (sign of weakness)”, “behavioural style (bottle up)”, “beliefs about expression (keep in control)”, and “beliefs about consequences (social rejection)” and translated them to German. Items were rated on a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*); internal consistency was (α = .63).

Control variables. Previous research has sometimes shown gender and often shown age effects with respect to depersonalization. Therefore, I included participants' *gender* (0 = *male*, 1 = *female*) and *age group* (in sample 1: 1 = *up to 29 years*, 2 = *30-39 years*, 3 = *40-49 years*, 4 = *50 and more years;* in sample 2: 1 = *up to 24 years*, 2 = *25-29 years*, 3 = *30 and more years*) as control variables. Because job tenure (group) correlated highly with the age group (r = .71, p = .000) in sample 1 and was identical for all participants in sample 2, I did not include job tenure in the analyses.

7.3.3 Data Analysis

To investigate determinants of fear of future violence, depersonalization, and perceived coping ability, six hierarchical multiple regression analyses were carried out (using SPSS 22.0) – three for each sample. Originally, gender and age (group) were entered first as control variables, but as gender was not significantly related to any of my outcome variables and controlling for it did not change the results, gender was excluded from subsequent analyses and only the age group was included as control variable in the regression models. Thus, in the first step of the regression, I entered the age group. In the second step, I entered exposure to violence and exposure to psychological aggression. If fear of future violence or depersonalization were the outcome variables, I entered perceived coping ability in a third step. In the next step, I entered perceived prevention, perceived support from colleagues, from supervisors, and from the management, the talk climate, and the discussion of workplace victimization (originally, I entered the two subscales of talk climate, but as both subscales were either similarly related or unrelated to the outcome variables in all regression analyses and a reduction of predictor variables was favorable with regard to the size of the smaller sample, I finally used the composite measure). For depersonalization only, I entered negative attitudes toward emotional expression in an additional step.

7.4 Results

Table 11 presents the means, standard deviations, and intercorrelations among all variables and for both samples. The data from 11% of the participants in sample 1 had missing values on predictor variables, leaving data from 531 officers. As preliminary analysis of my data revealed that in sample 2 three cases were outliers exerting undue influence (measured by Cook's distance) on the regression results, these cases were excluded from further analyses, leaving data from 109 police novices.

Table 12, 13, and 14 present the results of the hierarchical regression analyses. Age was significantly and negatively related to all three outcome variables in the sample of experienced officers, but not in the sample of police novices, where the age range was much smaller. As can be seen in Table 12, fear of future violence was significantly and positively related to exposure to violence in the sample of experienced officers, but not in the sample of police novices, whereas it was positively related to exposure to psychological aggression in both samples. Thus, hypothesis 1a is fully supported in the sample of experienced officers, and partially supported in the sample of police novices. Perceived coping ability was the strongest predictor of fear (highest standardized beta weight) in the sample of police novices, but it was not a significant predictor in the sample of experienced officers, supporting hypothesis 1b only for police novices.

Table 11: Summary of intercorrelations, means, and standard deviations for study variables in sample 1 and sample 2

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	*M*	*SD*
1. Gender (male = 0, female = 1)	—	.06	.09	-.14	-.09	-.14	-.09	.10	.08	.19*	.20*	-.04	.05	-.07	0.22	0.42
2. Age group (1-3^{a}/4^{b})	-.20***	—	-.10	.00	.04	-.05	.01	.04	-.07	-.06	-.03	-.20	-.01	-.04	2.14	0.55
3. Fear of future violence (1-7)	.07	-.22***	—	.35***	-.37***	-.02	.20*	-.40***	-.20*	-.20*	-.10	-.10	-.24*	.00	3.17	1.37
4. Depersonalization (0-5)	-.00	-.16***	.37***	—	-.23*	.19	.37***	-.31**	-.15	-.26*	-.27**	-.24*	-.29**	.24*	1.77	0.75
5. Perceived coping ability (1-7)	-.04	-.15***	-.01	-.06	—	.16	-.12	.26**	.34***	.18	.12	.19*	.25**	.07	5.56	1.09
6. Exposure to violence (1-6)	-.13**	-.14**	.36***	.32***	.07	—	.40***	-.09	.03	.06	-.07	.04	.08	.06	1.93	0.50
7. Exposure to psych. aggression (1-5)	-.02	-.22***	.37***	.30***	-.00	.59***	—	-.16	-.07	-.10	-.23*	-.06	-.02	.08	1.83	0.45
8. Perceived prevention (1-7)	-.02	.13**	-.28***	-.32***	.08	-.34***	-.34***	—	.23*	.33***	.45***	.26**	.33***	-.12	4.00	1.26
9. Perceived support colleagues (1-7)	.09*	-.18***	-.05	-.07	.38***	-.01	-.04	.18***	—	.35***	.18	.22*	.42***	-.09	6.40	0.83
10. Perceived support supervisors (1-7)	.06	-.24***	-.03	-.15***	.24***	-.09*	-.15***	.37***	.55***	—	.52***	.55***	.38***	-.10	5.61	1.37
11. Perceived support management (1-7)	.05	-.13**	-.14**	-.23***	.15***	-.24***	-.29***	.53***	.37***	.67***	—	.32**	.36***	-.14	4.08	1.60
12. Talk climate (1-7)	.11**	-.26***	-.01	-.19***	.12**	-.03	-.07	.29***	.37***	.56***	.43***	—	.38***	-.20*	5.43	0.85
13. Discussion of WPV (1-7)	.06	-.14**	.08	-.12**	.28***	-.02	-.10*	.36***	.38***	.46***	.46***	.38***	—	-.11	5.42	1.19
14. Neg. attitudes toward emotional expression (1-7)															3.21	0.72
M	0.18	2.25	3.24	1.61	5.31	1.73	1.65	3.74	5.95	5.25	4.24	5.25	4.75			
SD	0.39	0.94	1.58	0.88	1.14	0.66	0.52	1.18	1.07	1.56	1.74	1.02	1.65			

Notes. Intercorrelations for participants of sample 1 ($N = 596$) are presented below the diagonal, and intercorrelations for participants of sample 2 ($N = 112$) are presented above the diagonal. Means and standard deviations for sample 1 are presented in the horizontal rows, and means and standard deviations for sample 2 are presented in the vertical columns.

$^{*}p < .05$ $^{**}p < .01$ $^{***}p < .001$; ^{a} Sample 2 (police novices) ^{b} Sample 1 (experienced officers)

Table 12: Hierarchical regression results for fear of future violence (experienced officers, sample 1, $n = 531$; police novices, sample 2, $n = 109$)

		EXPERIENCED OFFICERS			POLICE NOVICES		
Step	Predictor	β	R^2	ΔR^2	β	R^2	ΔR^2
1	Age group	-.21***	.05	.05***	-.08	.01	.01
2	Exposure to violence	.23***	.20	.15***	-.09	.05	.04
	Exposure to aggression	.21***			.22*		
3	Perceived coping ability	-.05	.20	.00	-.36***	.17	.12***
4	Perceived prevention	-.22***	.25	.05***	-.33**	.27	.10*
	Perceived support colleagues	-.08[1]			.08		
	Perceived support supervisor	.03			-.13		
	Perceived support management	-.03			.18		
	Talk climate	.01			.09		
	Discussion of WPV	.20***			-.11		

Note. *$p < .05$ **$p < .01$ ***$p < .001$ [1]$p = .095$

Among the care and communication factors, perceived prevention was found to be a significant predictor of fear in both samples, but the discussion of workplace victimization was—contrary to my expectations—positively related to fear in the sample of experienced officers, so that hypothesis 1c was only partially supported. In total, the hypothesized model accounted for 25% of the variance in fear of future violence in the sample of experienced officers, and for 27% in the sample of police novices.

The results shown in Table 13 indicate that in the sample of experienced officers, the effects of exposure to violence and exposure to psychological aggression on depersonalization were significant in the hypothesized direction. In the sample of police novices, however, exposure to violence did not predict depersonalization, whereas exposure to psychological aggression was the strongest of all investigated predictors. Thus, hypothesis 2a is fully supported in the sample of experienced officers, and partially supported in the sample of police novices. Hypothesis 2b predicted that depersonalization would be negatively related to perceived coping ability, which was fully confirmed by the data from both samples. Hypothesis 2c was generally supported as some, but not all of the care and communication factors were related to depersonalization in the hypothesized direction, namely perceived prevention and the talk climate in the sample of experienced officers, and the discussion of workplace victimization in the sample of police novices. In the latter sample, negative attitudes toward emotional expression were measured and found to predict depersonalization, as posited in hypothesis 2d. In total, the hypothesized model accounted for 20% of the variance in depersonalization in the sample of experienced officers, and 41% in the sample of police novices.

Table 13: Hierarchical regression results for depersonalization (experienced officers, sample 1, n = 529; police novices, sample 2, n = 109)

		EXPERIENCED OFFICERS			POLICE NOVICES		
Step	Predictor	β	R^2	ΔR^2	β	R^2	ΔR^2
1	Age group	-.15***	.02	.02***	-.03	.00	.00
2	Exposure to violence	.21***	.13	.11***	.02	.16	.16***
	Exposure to aggression	.16**			.38***		
3	Perceived coping ability	-.08*	.14	.01*	-.29**	.24	.08**
4	Perceived prevention	-.16**	.20	.06***	-.09	.38	.14**
	Perceived support colleagues	.04			-.03		
	Perceived support supervisor	.02			-.18		
	Perceived support management	-.05			.02		
	Talk climate	-.16**			.02		
	Discussion of WPV	.00			-.27**		
5	Neg. attitudes toward emotional expression	---			.18*	.41	.03*

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

As can be seen in Table 14, exposure to violence was positively related to perceived coping ability in both samples, fully supporting hypothesis 3a. Exposure to psychological aggression had a negative effect in both samples, but it was only significant in the larger sample of experienced officers, providing partial support for hypothesis 3b. Among the care and communication factors, perceived support was the strongest predictor in both samples. Additionally, the discussion of workplace victimization had a significant effect in the sample of experienced officers, whereas the perceived prevention was a significant predictor in the sample of police novices. Care and communication factors accounted for 17% of the variance in perceived coping ability in the sample of experienced officers (of 20% in total), and for 18% in the sample of police novices (of 23% in total), generally supporting hypothesis 3c.

Table 14: Hierarchical regression results for perceived coping ability (experienced officers, sample 1, *n* = 531; police novices, sample 2, *n* = 109)

		EXPERIENCED OFFICERS			POLICE NOVICES		
Step	Predictor	β	R^2	ΔR^2	β	R^2	ΔR^2
1	Age group	-.13**	.02	.02**	.03	.00	.00
2	Exposure to violence	.13*	.03	.01*	.26*	.06	.06*
	Exposure to aggression	-.12*			-.15		
3	Perceived prevention	.03	.20	.17***	.24*	.23	.18**
	Perceived support colleagues	.32***			.28**		
	Perceived support supervisor	.05			.00		
	Perceived support management	-.06			-.08		
	Talk climate	-.07			.02		
	Discussion of WPV	.19***			.08		

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

7.5 Discussion

The purpose of the present study was to investigate predictors of fear of future workplace violence, depersonalization, and perceived coping ability in experienced and rookie police officers. Apart from demographic control variables, I examined the influences of three types of variables: a) exposure to violence or psychological aggression, which has been found to indirectly or directly predict negative outcomes in several earlier studies on the consequences of workplace violence; b) perceived coping ability with future workplace violence, which I examined as predictor as well as outcome variable, as two earlier studies suggested that it might play a crucial role in models of the consequences of workplace violence; and c) several resources related to the organizational climate and culture which have care or communication regarding workplace victimization and its consequences in common, namely perceived prevention of workplace violence, perceived support in cases of violence or threats from clients; the talk climate with respect to disturbing experiences, and the discussion of client-initiated violence, threats, and aggression. Additionally, I examined whether attitudes towards emotional expression predict depersonalization in police novices.

My results replicate several earlier findings and highlight relevant resources. Both types of workplace victimization were significant predictors of fear and depersonalization in the sample of experienced officers, and exposure to psychological aggression was significantly related to fear and strongly related to depersonalization in the sample of police novices, confirming earlier findings (regarding fear, Barling et al. 2001; Rogers & Kelloway, 1997; Schat & Kelloway, 2000, 2003; or burnout, e.g., Vuorensyrjä & Mälkiä, 2011). In the sample of police novices, however, exposure to violence predicted neither fear nor depersonalization, raising questions of whether there are aspects that protect police rookies from negative effects of exposure to violence. An examination of the differences in regression results between experienced officers and police novices points to much stronger relations between perceived coping ability and both outcome variables (but particularly fear) in rookies than in experienced officers. Thus, I subsequently carried out two moderated regression analyses in the sample of police novices (i.e., I introduced the interaction term of exposure to violence x perceived coping ability, both centralized, as an additional step in the two regression analyses) and found a substantive effect of the interaction term on fear of future violence (accounting for additional 2% of the variance), although it failed to reach traditional levels of significance (p = .080). It appears that higher levels of exposure to violence during the first year of active duty are related to lower levels of fear in police novices with high levels of perceived coping ability, but to more pronounced fear in police novices with lower levels of perceived coping ability. Due to the cross-sectional nature of my data, causation cannot be established. These findings are related to the fact that exposure to violence during their first year as a fully trained police officers was one of the strongest predictors of police novices' perceived ability to cope with future workplace violence. I assume that many novices feel insecure about how well they will be able to cope with violence before they make their first experiences. In accordance with Bandura's (1997) notion that mastery experiences enhances self-efficacy, I suggest that incidents of client-initiated violence usually provide opportunities to generate experiences of withstanding such incidents without lasting damage, which increases an optimistic perspective with regard to future victimization. Incidents that due to their nature and intensity are experienced as harmful or even as traumatic seem much rarer and most likely generate different effects.

Organizational climate and culture variables explained a significant amount of variance in all three investigated outcome variables and in both samples. The perceived adequacy of preventive measures was a highly significant predictor of fear in both samples, and a predictor of police novice's perceived coping ability, which replicates findings of Mueller and Tschan (2011) from a medium risk occupational group, indicating that perceived prevention is also important for employees facing high levels of workplace violence. Moreover, perceived prevention was negatively related to depersonalization in the sample of experienced officers, which can be interpreted in support of the suggestion that adequate prevention may be seen as care taken by the employer, thus reducing cynicism in officers. However, as my data is cross-sectional, it may also reflect that depersonalized police officers perceive less preventive measures or consider them as less adequate. Unexpectedly, neither type of support (from colleagues, supervisors, or management) was significantly related to fear or depersonalization in any of my samples. However, perceived support from colleagues was the strongest predictor of perceived coping ability in both samples. Beneficial effects of peer support on fear and depersonalization thus seem to be mediated by the perceived coping ability – particularly in the sample of police novices. Contrary to my hypothesis, the extent to which workplace victimization is perceived to be a topic of discussion within the organization (or unit) was *positively* related to fear in the sample of experienced officers. I see two possible causes of this unexpected direction of the relationship: a) the discussion of workplace violence may intensify its salience, therefore increasing the perceived likelihood and fear of future violence; and b) participants who report more worries about workplace violence also communicate more about it and consequently report more talk within the organization/unit. The latter can result from differences in personalities, but it seems more likely related to the fact that different job profiles within the police organization are related to different levels of exposure to conflict and violence (Manzoni & Eisner, 2006), so that the discussion of victimization and fear-levels both might be more pronounced in units more exposed to client-initiated workplace violence and aggression. With regard to depersonalization and perceived coping ability, my results show beneficial effects of an open talk climate with respect to disturbing events in general and workplace victimization in particular, even though the effects were not found consistently across all investigated relationships. My findings are in accordance with several authors who promoted open talk and emotional expression among team-mates as constructive way of coping with primary and secondary victimization (see above). Contrary to my expectation, the talk climate did not predict perceived coping ability in any of my samples.

Negative attitudes toward emotional expression were related to higher levels of depersonalization in police novices, supporting earlier findings of detrimental effects (attitudes were not measured in the sample of experienced officers). However, my cross-sectional data does not allow to establish causality, that is, I cannot determine whether a) negative attitudes toward emotional expression block some adaptive ways of coping and/or increase the use of defensive coping, leading to more depersonalization; b) depersonalization changes attitudes towards emotional expression; or c) unmeasured third variables such as, for example, masculinity or macho values (e.g., Reiser & Geiger, 1984), influence attitudes towards emotional expression and levels of cynicism in participants.

I would like to point to one additional finding: Intuition and the finding of an inoculation effect in police novices might suggest that with increasing age, which is highly correlated with experience on the job, police officers become more confident with respect to their ability to cope with workplace violence. This is not the case: In the sample of experienced officers, perceived coping ability is highest in the group of officers up to 29 years of age, and age (or more precisely the age group) is *negatively* related to perceived coping ability. I see three possible reasons for this finding: First, decreases in perceived coping ability with age could reflect some erosion of this protective resource with accumulated victimization experiences. Second, increasing age might intensify feelings of physical vulnerability. Third, decreases in perceived coping ability could result from a decline in perceived support and a different situation with regard to the talk climate. As the correlation matrix (Table 11) reveals, age is negatively correlated to perceived support from all three sources, but particularly from supervisors, as well as to the discussion of workplace victimization and, particularly, to the talk climate with respect to disturbing incidents. In fact, a closer examination of my data shows that across the four age groups in the experienced sample, the levels of perceived support and of a positive talk climate decrease linearly. While I cannot completely rule out that the quality and quantity of talk and other kinds of support are the same for all age groups, but that the expectations and perceptions change with age, I rather think that older officers get less such support. But why? Two mechanism might exert influence: First, supervisors and team-mates might assume that police officers with long years of experience on the job have developed a protective shell that shields from emotional upheavals caused by dreadful experiences (Adlam, 1982, cited from Anderson & Bauer, 1987). Therefore, after a stressful or disturbing incident, supervisors and colleagues might offer less or no support and ask less or no questions about how their older team-mates feel and cope. Second, Semmer et al. (2005) noted that "statements or actions will be perceived as supportive to the extent that they communicate care and esteem" (p. 23). It most likely is more delicate to do or say things to older, more experienced officers that convey such a message—particularly with respect to esteem—than to younger, inexperienced officers. Thus, supervisors and colleagues might shrink from offering a talk or other support to older, more experienced officers for fear of more or less offended rejection.

My study replicates and extends earlier findings regarding predictors of fear of future violence and depersonalization, and it is the first to specifically suggest predictors of perceived coping ability with future workplace violence. Before addressing the practical implications of my findings, I would like to point to limitations that should be considered and addressed in future research. First, as mentioned before, I used cross-sectional self-report questionnaire data, which limits causal inferences and bears some risk of mono-method bias or influences of unmeasured third variables (e.g., negative affectivity, occasion factors; Dormann & Zapf, 2002; Zapf, Dormann, & Frese, 1996). Minimal correlations between some of the measured variables indicate no threat to my results from mono-method bias, but future research, able to establish causality, is needed to validate my results. Second, only moderate amounts of variance (R^2 between .20 and .41) were accounted for in my regression models, indicating that other important, but not included predictors exist. Third, although the content of the two-item measure of perceived coping ability with future workplace violence seems appropriate, I second earlier notions that the measure might be expanded or replaced and thoroughly validated. After replication of my results with optimized measures, I would also hope for evaluation studies of intervention programs to enhance the support and talk climate within police teams (e.g., similar to the civility interventions reported by Leiter, Laschinger, Day, & Oore, 2011, which were able to reduce cynicism-levels of participants). Such studies should, of course, measure effects on the perceived coping ability of participants and their symptoms of burnout.

7.5.1 Practical Implications

My results emphasize the important, enabling function of a supportive climate and they correspond well with findings of Perrott and Kelloway (2003, as cited in Perrott & Kelloway 2006), who found urban police officers to be relatively unaffected by citizen-initiated violence and hostility as long as they perceived that their peers provided a supportive environment. There have been researchers before me who noted that whereas citizen-initiated physical assaults, threats of violence and hostility might be largely beyond the control of management, providing social support and supporting teams in creating a supportive environment is not (e.g., van Emmerik et al., 2007). My results indicate that younger police officers perceive better opportunities to talk about disturbing experiences and expect more support regarding victimization on the job than older, experienced officers. At least some of the experienced officers seem to miss that, and it most likely has detrimental effects on their perceived coping ability, which is why it is important not to forget the old stagers when providing care and support. In my opinion, one of the foremost aims of police leaders should be to promote an occupational culture in which emotions and the talk about difficult or disturbing experiences get a new standing. A culture in which police officers do not need to get drunk to allow themselves to vent emotions or to talk about disturbing experiences. One in which police officers can still use humor if they feel it helps them to deal with dreadful encounters, but where they comprehend that when they rationalize tragic events through humor, they manifest a need to share emotional experiences (Pogrebin & Poole, 1991), and that they can do so in earnest ways too, without being perceived as weak. A culture in which being a ‘real man’ and a capable police officer does not mean to be fearless, but to be courageous enough to work through difficult experiences (as recommended by Horowitz, 1993, or Perrott & Kelloway, 2006), to talk about feelings, and to acknowledge the impact of assaults, threats of violence, or danger on the job.

Such a change in the occupational culture is neither easy nor fast to get. Some police forces have introduced so-called “peer support” models, which encourage officers to talk about disturbing or traumatic events with carefully selected members of the work group, who have been specifically trained to provide sympathetic and constructive support (Stephens et al., 1997). Such models take into account that many police officers are unwilling to utilize professional counseling services by psychologists and often prefer to talk with supportive persons with whom they share specific job experiences. Informational interventions might include that police trainees are informed about the role of attitudes toward emotional expression (as suggested by Nightingale & Williams, 2000). But the greatest potential might lie in the fact that, as outlined above, police recruits are eager to learn from their more experienced colleagues. If at the outset of their practical training they are paired with an experienced patrol partner who has particular skills in what Pogrebin and Poole (1991) called “emotional mentoring” (p. 401), they might embrace talking about feelings and offering this kind of support as part of the job. It lies within the responsibility of police leaders to select the right role models as mentors and patrol partners of rookies, and to generally appreciate these kinds of social skills accordingly. Kop and Euwema (2001) stated that in democratic societies, social skills have become the most important weapon of police officers. I might add that such skills are also a weapon against negative consequences of violence and aggression at work.

7.5.2 Conclusion

Support and talk climates with respect to victimization at work need attention in any organization facing workplace violence, but even more in an environment as the police culture, where emotions are often suppressed and people fear that any expression of feelings or distress associated with the job and its dangers might be perceived as an indicator of weakness, of reduced competency and reliability, or general inadequacy for the job (e.g. Dick, 2000; Koch, 2010; Pogrebin & Poole, 1991). On the basis of my data, I conclude that for police officers—particularly for police novices—perceived coping ability is a valuable personal resource, and preventive measures, an open talk and otherwise supportive work climate are organizational resources that improve perceived coping ability with future violence, reduce fear (and therefore further negative consequences of workplace violence) and depersonalization, which in turn reduces the likelihood of a vicious circle of violence and hostility between civilians and the police. Employers should strive to building and maintaining these valuable resources.

8 General Discussion

The main aim of the presented thesis was to generate knowledge about client-initiated violence and psychological aggression as stressors for public officials, and particularly about factors that might mitigate negative consequences of such victimization on the job. To achieve this aim, I reanalysed own survey data of job center and social security office staff, carried out questionnaire surveys in three different police corps in order to gain cross-sectional and longitudinal data, and studied the interplay of workplace victimization, adverse outcomes, and intervening factors.

8.1 Summary and Interpretation of the Main Results

Exposure to client-initiated workplace violence—that is, physical assaults, threats of violence, or witnessed assaults or threats against teammates—has been found to directly or indirectly predict several negative outcomes in all three samples, namely job centre and social security office staff (a medium-risk sample), experienced police officers, and police novices (two high-risk samples). This is in accordance with many earlier findings (e.g., Barling et al., 2001; Hogh & Viitasara, 2005; Lanctôt & Guay, 2014; Needham et al., 2005; Rogers & Kelloway, 1997; Schat & Kelloway, 2000, 2003) and confirms that workplace violence is a significant stressor for many participants in my medium-risk sample as well as for many police officers.

The cumulative effect of exposure to psychological aggression has been investigated in the two police samples and it has been found to predict several negative consequences. Interestingly, exposure to verbal abuse and hostility was a highly significant predictor of depersonalization in police novices, even after controlling for prior depersonalization levels as well as other variables, whereas exposure to violence was not found to be a significant predictor of depersonalization in the same constellation. This is of particular importance as the longitudinal data revealed that depersonalization predicts victimization one year later, indicating a vicious circle of victimization and depersonalization. The results also demonstrate the necessity to differentiate workplace violence (i.e., physical assaults and threats) from psychological aggression. Reason for the strong effect of exposure to psychological aggression on depersonalization in police novices may be that the extent of verbal insults and other hostility by citizens in an urban environment may be less anticipated and experienced as less role congruent than exposure to violence, and/or that responding—or not responding—to psychological aggression is particularly challenging with respect to emotion regulation demands (see section 8.2).

In both structural models, the perceived likelihood of future violence (which has been suggested to be the cognitive aspect of fear) and fear of future violence were posited as mediators of the relationship between workplace victimization and negative outcomes. This role was generally confirmed, but in the sample of the experienced police officers, the two variables only partially mediated the relationship between exposure to violence and negative outcomes, leaving significant direct effects of violence on all four outcome variables, that is, turnover intentions, irritability, impaired well-being, and symptoms of burnout. This finding may indicate a crucial difference between occupational groups with low or medium levels of exposure to violence and professionals who are exposed to high levels of violence. Although exposure to violence is a stressor for both groups, it is most likely a different type of stressor: In my medium-risk sample, 4% of the participants reported exposure to physical assaults in the preceding year, 1% had been threatened with a weapon, and 29% experienced threats during the year before the survey. In the two police samples, 65% and 87% reported physical assaults, 13% and 21% were threatened with a weapon, and 70% and 71% were exposed to massive verbal threats of violence (police officers were not asked to report more common, lower-intensity threats, and multiple victimizations in all subtypes of violence were frequent). Thus, for the participants of my medium-risk sample, physical assaults or threats with a weapon are acute stressors, occurring very infrequently, most likely being experienced as highly intense or severe (as defined by Pratt & Barling, 1988). Such experiences can certainly have very detrimental effects on the affected individual, but there are just a few victims and negative consequences for the sample as a whole are most likely to stem from fear of future violence which, if experienced often or constantly, is a chronic stressor. For frontline police officers, on the other hand, violent encounters are much more frequent and—with the exception of particularly frightening incidents that might constitute acute stressors—they can be described as chronic intermittent stressors (as defined by Elliott & Eisdorfer, 1982, cited from Lazarus & Folkman, 1984), leading to direct effects as well as to indirect effects as particular and often accumulating victimization experiences and the constant danger of violence—a chronic stressor—increase fear, which in turn leads to adverse outcomes.

Perceived coping ability with future violence was one of the newly introduced variables into my model of the consequences of client-initiated workplace violence. It was found to be a strong predictor of fear in the sample of job center and security office staff as well as in the sample of police novices, thus indirectly predicting several adverse consequences in both samples. It was also a significant predictor of all four outcome variables—turnover intentions, irritability, impaired well-being, and symptoms of burnout—in the sample of experienced officers. Furthermore, it moderated the relationship between exposure to client-initiated violence and emotional exhaustion in both police samples – even after controlling for pre-employment psychological well-being and for emotional exhaustion twelve month earlier in the sample of police novices. It further moderated the relationship between exposure to violence and depersonalization as well as between psychological aggression and emotional exhaustion in the sample of experienced officers. I thus consider perceived coping ability with future violence to be a very valuable personal resource.

Perceived prevention of workplace violence was the second of the newly introduced variables. It predicted the perceived likelihood of future violence and the perceived coping ability in the model of the consequences of client-initiated workplace violence, tested with the sample of job center and social security office staff. That is, it indirectly predicted fear in this medium-risk sample. It also predicted perceived coping ability in the sample of police novices, but not in the sample of experienced officers, indicating that it is an important influencing factor for this valuable resource in employees exposed to medium levels of workplace violence as well as in inexperienced employees exposed to high levels of workplace violence. Moreover, perceived prevention turned out to be a significant predictor of fear-levels in both police samples. It was also negatively related to depersonalization in experienced police officers, probably because it conveys a message of care taken by the employer.

In the last study, I investigated organizational climate or culture factors as resources that might mitigate the consequences of workplace victimization in police officers by predicting perceived coping ability with future violence, fear of future violence, or depersonalization. The perception of stressor specific support from colleagues, that is perceived support with respect to violence at work, predicted perceived coping ability in both samples, but was not directly related to fear or depersonalization. Perceived support from supervisors or the management was not significantly related to perceived coping ability, fear, or depersonalization. The communication climate, either with respect to talks about distressing or disturbing job experiences, or with respect to workplace victimization in particular, was negatively related to depersonalization in either of the police samples, and positively related to perceived coping ability in experienced officers, suggesting that such a climate might foster constructive coping and thus reduce depersonalization in the long run. A climate in which the specific stressor of workplace victimization is a topic might also provide occasions to learn about coping strategies and successes of colleagues, which might enhance police officers' optimism with respect to their own ability to cope with future victimization.

In sum, the basic model of the consequences of workplace violence—which is based on research by Kelloway and colleagues (see section 3.4) and posits that workplace victimization raises the perceived likelihood of future violence, which increases fear of future violence, which then predicts adverse outcomes—has been largely confirmed by my studies. Unlike in earlier studies, however, the relationships between exposure to violence and strains were only partially mediated by the perceived likelihood and fear of future violence in my high-risk sample of experienced police officers from two different police corps. This indicates crucial differences between the experience of workplace violence as stressor in my medium-risk sample versus my high-risk sample. Replication studies with samples from different high-risk occupational groups are due to test whether these differences indeed stem from the different levels of exposure to workplace violence, and to confirm that they are, for example, not merely related to different occupational cultures. The newly added variables, perceived coping ability and perceived prevention, have been proven to be highly relevant factors with regard to fear of future violence and negative personal and organizational consequences, with perceived coping ability actually buffering the effects of high levels of exposure to violence on emotional exhaustion in police novices as well as experienced officers. Both concepts should be included as mitigating factors in future models of the consequences of workplace violence. Additional climate and culture factors, relating to support and the discussion of disturbing experiences in general and workplace victimization in particular, have been found to have direct or indirect effects on strains.

Depersonalization appears to be a negative outcome of particular relevance as it predicted future victimization of police novices in my longitudinal study, indicating a vicious circle of victimization and depersonalization in police officers.

8.2 Implications and Suggestions for Future Research

Several implications of my findings have been addressed in the discussion sections of the three papers. At this point, I would like to focus on considerations and concepts related to potential vicious circles, which should be included in future studies on and in models of the consequences of workplace violence because they are relevant for the well-being of employees as well as clients.

Although my research was confined to public officials as victims of violence and hostility and on factors that might mitigate the consequences of victimization and fear for such employees, I am also concerned about the protection of clients and citizens from unjustified aggression, from abuse of power or force by public officials. While I did not directly investigate the latter, some findings clearly indicate that the two concerns share common ground: victimized police officers reported higher levels of depersonalization, and results from my longitudinal study showed that depersonalization predicted future victimization, while earlier studies demonstrated the relationship between depersonalization and police officers' hostility against citizens and their attitude towards and actual use of violence (Burke & Mikkelsen; 2005, Kop et al., 1999; Kop & Euwema, 2001). One can deduce that the reduction of victimization or the mitigation of its consequences, depersonalization in particular, is not only beneficial for police officers, but also for the citizens they interact with. In a similar vein, one can assume that job center staff, social security officers and other public officials who are less worried about client-initiated violence and therefore less irritated, treat clients friendlier and with more calm and patience than their fearful, irritated colleagues. Thus, understanding and positively influencing the interplay of workplace victimization, consequences, and mediating and moderating factors serves employees and clients alike. The presented research contributes to such an understanding. However, there are aspects that I have not addressed sufficiently and that should be investigated in future research.

Victimization, whether by physical assaults or verbal insults, may be experienced as degrading. Hurrell et al. (1996), for example, found that exposure to assaults by clients damaged self-esteem levels of male state employees, including state police personnel. My research did not include self-esteem measures, but at the end of my survey questionnaire, the police novices, who all had one year of full duty work experience, were asked about aspects of their profession they liked least (open question): “Lack of respect” was the most frequent answer, indicating that many police officers feel depreciated by their clients or the public. Jermier et al. (1989) compared the physically dangerous aspects of police work with degrading tasks in other occupational groups – tasks or stigmatic job features that, according to them, are sometimes hidden, but often glamorized and dramatized, but remain substantively injurious. I therefore suggest to apply the “stress-as-offense-to-self” perspective of Semmer and colleagues (e.g., Semmer, Jacobshagen, Meier, & Elfering, 2007) to workplace victimization, that is, to investigate exposure to client-initiated workplace violence and psychological aggression as threat to self-esteem, and particularly, to examine whether victims react to it with own hostility or even violence (as suggested by Baumeister, Smart, & Boden’s, 1996, notion of violence and aggression as a result of ego threats, particularly in people with high but unstable or insecure self-esteem), or with strategies to restore ore enhance their self-worth that have adverse impacts on clients (e.g., degrading treatment of clients; abuse of power).

Although many police officers seem to cope quite successfully with exposure to violence, aggression, and danger on the job, one must be aware that coping with such experiences—with stress and its associated emotional states in general—involves some cost to the person, as outlined by Kahn et al. (1964) half a century ago. They emphasized that beyond more obvious costs, such as time and energy, coping behavior might create derivative problems For example, the persons’ defensive reactions to the experience of stress or the associated arousal of intense, potentially debilitating emotions often create secondary or tertiary problems, which sometimes generate great costs. I consider increased levels of depersonalization to be such a derivative problem, which most likely has a negative impact on police officers’ personality and behavior, involving a loss for them, their families, friends, workmates, and their relationships with citizens – whether they are aware of it or not. In this regard, I consider my findings that indicate the existence of a vicious circle of victimization and depersonalization as particularly relevant result.

Beneath the costs of coping in general, the psychic costs and potential consequences emanating from frequent emotion regulation episodes should be addressed: Public officials, police officers in particular, are required to stay calm and to act professionally – even if physically assaulted or verbally insulted. Thus, they have to adhere to masking display rules, that is, to display emotional neutrality and restraint (Wharton & Erickson, 1993) even if physical or verbal attacks elicit strong negative emotions, such as anger or fear. The emotional regulation process necessitated by such norms about appropriate emotional expression can occur via antecedent-focused regulation, which occurs before the emotion is generated and encompasses ways of altering the stimulus or perception of the stimulus, or via response-focused regulation, which occurs after emotional response tendencies have been initiated (Gross, 1998) and consists mainly of suppression of emotional expression. For public officials exposed to client-initiated violence and hostility, cognitive change strategies—particularly (re)appraisal strategies—and suppression strategies (hiding one's true emotions) seem most suitable to be used in order to meet neutral display rules and work demands. Suppression of one's emotional expressions may appear to be the easier, more straightforward strategy, but it has repeatedly been related to detrimental outcomes (Brotheridge & Grandey, 2002) and Hochschild's (1983/2003) notion that frequent inauthenticity may lead to burnout and to detachment (from one's own genuine feelings and from other people) was confirmed by research of Brotheridge and Grandey (2002), who found hiding negative displays, mediated via surface acting, to predict depersonalization in different occupational groups. Maintaining neutral displays has been suggested to be particularly burdensome and expression suppression as particularly difficult to maintain (Beal & Trougakos, 2013; Trougakos, Jackson, & Beal, 2011) and as depleting one's regulatory resources, leading to a temporarily reduced capacity to regulate behavior, and therefore to impaired performance or self-control (Baumeister, Bratslavsky, Muraven, & Tice, 1998; Muraven, Tice, & Baumeister, 1998). I therefore recommend to research the relationship between victimization of police officers and several consequences, but particularly (undue) use of force by police officers, under the emotion regulation lens. Maybe successful regulation of emotions and resulting behavior becomes nearly impossible once the intensity of the emotion, such as anger or fear, passes a certain mark (Beal & Trougakos, 2013), leading to uncontrolled violence of police officers who were physically assaulted or feel severely threatened. Undue use of force may sometimes be the result of police officers—who have kept their calm again and again when confronted with insults and hostility—encountering client-initiated violence in a moment when their regulatory resources are depleted and their self-control is impaired. These considerations are not meant to excuse police violence, but such research could provide insights into processes that may lead to police violence perpetrated by officers who strive to act correctly and condemn undue use of force. Subsequently, one might derive measures to reduce violence between the police and the public.

Related and further research questions are: What emotion regulation strategies are used by public officials, for example police officers, when they are exposed to client-initiated violence and psychological aggression? Can employees be trained to use (more) antecedent-focused strategies (as they have been found to have less detrimental effects than suppression strategies; e.g. Brotheridge & Grandey, 2002; Trougakos et al., 2011) or to improve their recognition of other's emotions (as emotion recognition has been found to moderate the relationship between emotional labor and work engagement in nurses and police officers; Bechtoldt, Rohrmann, De Pater, & Beersma, 2011)? Do (re-)appraisal strategies (as described by Beal & Trougakos, 2013) become automatized? Can instructions or training improve or expedite such automatic emotion regulation (which, as opposed to controlled regulation, supposedly leads to less/slower depletion of regulatory resources; Baumeister et al., 1998)? Are there other strategies to enhance, conserve, regain or buffer the loss of regulatory resources (Trougakos et al., 2011)? How does emotion regulation of police officers, particularly with respect to encounters with violent or psychologically aggressive clients, change as a result of work experience? How can a climate or culture be fostered, in which the resource-depleting suppression or hiding of true emotions is restricted to contact with clients or citizens, and loosened or dropped when among team members, particularly within the police?

8.3 Conclusion

Exposure to client-initiated violence and psychological aggression can be physically and/or psychologically harmful. The increase in violence and hostility against public officials thus renders the work of job center and social security office staff as well as of police officers increasingly dangerous. Fortunately, victimization does not inevitably lead to severe consequences: There are organizational resources, as well as personal resources that can be influenced by organizational factors, which mitigate the effects of workplace victimization and facilitate working under more or less constant threat of violent encounters with clients. It is, however, essential that the management acknowledges the taxing nature of violence and fear on the job—but also of exposure to psychological aggression—to which employees cannot freely respond due to their professional role requirements.

Some clients and citizens view public officials in a dehumanized way – they see functions and uniforms, and they treat individuals, who treat them professionally and often friendly, as enemies. To bear such hostility without getting ill or too detached from clients, citizens, and fellow human beings in general, requires colleagues, supervisors and management executives who provide care and understanding of this particular stressor. Hopefully, my research elucidates that public officials have no protective shell against the impact of violence and hostility on the job. Neither their bodies nor souls are armored. In the words of a police officer, interviewed by Skolnick (1966) half a century ago: “We’re made of flesh and blood, too”.

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Declaration of Authenticity

I hereby certify that this thesis represents my own work, that it has been written by me, that all sources that I have used have been properly documented, that I have not received any undue assistance from third parties, and that it has not been submitted in any previous application for a higher degree.

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