

Original article

Physical violence at the workplace: Consequences on health and measures of prevention

Violence physique sur le lieu de travail : conséquences sur la santé et mesures de prévention

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Abstract

Based on definitions and theoretical models of physical violence at the workplace, this paper presents scientific knowledge and working hypotheses regarding both, the causes and effects of physical violence on health, and pertinent preventive measures of intervention to be taken by enterprises. Four groups of determinants of violence are presented and discussed: determinants relative to the structure and the culture of the enterprise; the aggressor; the victim; and the socio-cultural environment. The theoretical model by Baron and Neumann [Public Admin Q 21 (1998) 446–64] is used to explain the complex origin of violent behavior at work based on these determinants. Moreover, the various and multiple consequences of a violent act are examined. In addition to the direct effects of such an act on the social, organizational and individual level, the indirect effects are also taken into consideration. In this analytical context, health problems are more particularly underlined, such as the psychological trauma suffered by victims of a violent act. Finally, two different areas of intervention will be distinguished: interventions on the physical environment and interventions on the level of company management or an organizational group which aims at changing the behavior of the members of the organization. Different scientific evaluations of action programs to reduce violent acts are presented. In conclusion, this paper calls for further research on physical violence in the workplace.

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Résumé

En se basant sur des définitions scientifiques et des modèles théoriques de la violence physique sur le lieu de travail, l'article présente les savoirs scientifiques et les hypothèses de référence quant aux causes, quant aux effets sur la santé et quant aux mesures d'intervention préventive pertinentes à prendre à l'égard de la violence physique dans les entreprises. Quatre groupes de déterminants sont présentés et discutés : déterminants relatifs à la structure et culture de l'entreprise, à l'agresseur, à la victime et à l'environnement socioculturel. Le modèle théorique de Baron et Neumann, J.H. [Public Admin Q 21 (1998) 446–64] sert de modèle de référence pour expliquer la genèse complexe des comportements violents sur le lieu de travail à partir de ces déterminants. Par ailleurs, les conséquences variées et multiples de l'acte violent sont examinées. Mis à part les effets directs – au niveau social, organisationnel et individuel – d'un tel acte, les effets indirects sont également à prendre en considération. Dans ce contexte d'analyse, les problèmes de santé sont plus particulièrement mis en exergue, comme, par exemple, le traumatisme psychique subi par les victimes d'un acte violent. Enfin, deux différents domaines d'intervention vont être distingués : les interventions sur l'environnement physique et les interventions auprès de la direction d'une entreprise ou d'une unité organisationnelle et qui ont pour objectif le changement du comportement des membres de l'organisation. Différentes évaluations scientifiques de programmes d'actions pour réduire les actes violents sont présentées. En conclusion de cet article, un appel à intensifier la recherche sur la violence physique sur le lieu de travail est lancé.

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Keywords: Physical violence; Occupational health; Theoretical models; Measures of intervention

Mots clés : Violence physique ; Santé au travail ; Modèles théoriques ; Mesures d'intervention

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It has become common to hear media reports of physical violence – extreme for the most part – at the workplace: ticket inspectors who are attacked by passengers in trains; members of the medical staff who mistreat their patients; security guards who are wounded or killed during robberies; even teachers who are attacked by students (Steffgen, 2004). In spite of the media coverage of physical violence in the workplace, the psychology of organizations has not made it a central subject of research.

It is well-known that in the professional environment (the workplace), psychological violence, in the form of verbal aggression, mobbing or (sexual) harassment, is recorded more often than are physical attacks (Chappell and DiMartino, 2000; Salminen, 1997; Tragno et al., 2007) and, therefore, it has attracted the scientific as well as the public interest more strongly in recent years (Rosen, 2001; Scezsny, 2004; Zapf, 2004). However, it has been established that numerous employees have been victims of physical attacks (Baron and Neumann, 1996) and that the frequency of acts of physical violence in the workplace is in progression (Flannery, 1996; Standing and Nicolini, 1997; Tobin, 2001; Warchol, 1998; Hoel et al., 2001).

This paper aims at making a review of the subject by offering a general overview of the research related to the prevalence of physical violence in the workplace, the causes of this localized violence, the consequences for the victims – particularly on the level of health – as well as proposed preventive measures.

1. Definitions and forms

In the social sciences, the notion of violence is defined in a different and a heterogeneous way. The notion is often reduced to that of an aggression and this designates the more extreme forms of violence. Violence, as an individual behavior, refers mainly to serious forms of physical aggression with an orientation towards dominance (Berkowitz, 1993; Bierhoff and Wagner, 1998).

Baron and Richardson (1994) consider aggression as all behavior whose goal is to inflict injury and to harm another human being, respectively, and/or offend him, while the latter clearly intends to avoid the injury and/or the offense.

According to Bornewasser (1998), the terms violence and aggression group different forms of action, which have in common a harmful effect on the victim and which falls within the sphere of normative prohibition. According to this author, the term aggression refers to impulsive aggression (having an emotional cause), while the term violence refers to functional aggression (without emotions, with an aim).

In addition to the distinction between impulsive and functional aggression originally offered by Feshbach (1964), other categorizations of the act which is physically or psychologically damaging have been proposed. Buss (1961), for example, distinguishes between physical and verbal aggression, active and passive aggression, and direct and indirect aggression (see also Tarquinio et al., 2004a). According to these authors, aggressions are acts which cause both psychological and physical prejudice to the victim as well as to the aggressor.

The distinction between structural and personal violence will be made below.

Galtung (1975) has defined the concept of “structural violence” as a prejudice caused by a social structure that has the particularity of preventing/hindering the development of (some) individual potentials of its members. This encompasses unjust/unequal treatment rooted in the norms, laws, rules, arrangements or customs that are specific to a social environment, an institution or an enterprise.

“Personal violence” includes the actions of individual actors that are directed towards other persons. It can be categorized as physical violence, psychological violence, sexual violence or violence by neglect or shortcomings. “Personal” physical violence can be directed at other individuals (homicide, murder, rape, sexual violence) or at oneself (self-mutilation, suicide) (Violanti, 1996).

According to Jenkins (1996), the notion of physical violence does not only include concrete cases of physical injury, but also cases in which threats of physical violence are made.

Regarding “physical” violence towards objects (damaging objects, vandalism), it must be distinguished from other forms of physical violence.

The definitions of (physical) violence at the workplace are again differentiated according to the sense (broad or literal) that is given to the notion of the workplace (Bulatao and VandenBos, 1996). Baron and Neumann (1998) propose restricting the notion of violence linked to the work station (workplace violence) to direct corporal attacks which occur in the workplace itself or within an organization. O’Leary-Kelly et al. (1996) distinguish between workplace aggression motivated by the existence of an organizational structure from workplace aggression explained by factors which are external to the organization such as conjugal or familial violence. Other less restrictive definitions, such as those by Hoed (1993) and Jenkins (1996), also include theft, familial violence and acts of terrorism as violence linked to the context of work.

A more recent definition offered by Howard (2001) considers that there is violence in the workplace if a prohibited behavior reduces the real and perceived security of the employee, supervisor or organization. This definition also includes violent events which occur outside of the workplace and working hours, insofar as the behaviors relate to motives linked to the job.

Depending on the link which exists between the aggressor and the organization, it is possible to distinguish four forms of violence in the workplace (Braverman, 1999; Peek-Asa et al., 2001). Type 1: the aggressor has no relationship to the enterprise and he uses the organization/the work station uniquely with the intention of committing a criminal act (for example, he attacks a taxi driver to rob him). Type 2: the aggressor is a client of the employee whom he threatens or even physically attacks (for example, a patient who attacks a nurse). Type 3: The aggressor is, or was, a co-worker of his victim whom he “punishes” in the workplace because, for example, he behaved unfairly to him. Type 4 includes all the situations in which a personal relationship between the aggressor and the victim exists without there being a relationship between the organization and the aggressor.

This last category consists of “imported” familial violence in the workplace (Friedman et al., 1996).

2. Prevalence of physical violence

Estimating the rate of the number of acts of physical violence committed in the workplace is difficult since the definitions as well as the measuring methods differ in the studies done on this subject. Each study often has its own operationalization on physical violence in the workplace. Effectively, in the context of representative surveys, the items which were used have generally been constructed by the authors themselves. In other cases, lists of items or specific methods of measure are used regarding a defined professional setting/sector (Arnetz, 1998) or scales and normed aggression inventories (Buss and Perry, 1992; Hampel and Selg, 1998). Furthermore, “checklists” with the purpose of evaluating the danger of an exposition to violence in relation to a defined work station have also been used (LeBlanc and Kelloway, 2002). Finally, comparative estimations are difficult because the rate of the number of victims and aggressors varies according to the data sources that are used and the quality of the samples (biased statistics established by special interest groups; surveys that are representative or not; databases made up in various ways by research institutes).

For example, regarding the surveys that are systematically conducted in the United States, it seems clear that the results obtained differ (Bureau of Justice Statistics, Bureau of Labor Statistics, American National Crime Victimization Survey, National Institute for Occupational Safety and Health, U.S. Department of Labor Occupational Safety and Health Administration, California Occupational Safety and Health Administration, VandenBos and Bulatao, 1996). Based on a critical analysis of this data as well as on their research, Budd et al. (1996) estimate that, on the average, 2.5% of the employees have suffered physical violence and 7.4% have experienced threatening situations in the workplace in the USA (White, 1996). In all, two million employees would be victims of acts of violence and six million would be victims of threats per year in the USA (Barling, 1996).

The proportion of physical violence carried out by co-workers is quite low (Braverman, 1999). Effectively, the aggressors have no professional relationship with their victim in most of the cases (Peek-Asa et al., 1997; Hashemi and Webster, 1998).

The rate of homicides or murders committed in the workplace have attracted attention, in particular concerning the Anglo-American area (Kraus, 1987; Bulatao and VandenBos, 1996). The statistics covering the period from 1980 to 1988 show that homicide is the third cause of death linked to the work station. It has even become the first cause of death in the workplace since 1993 (Castillo and Jenkins, 1994; Goodman et al., 1994; Lusk, 1992).

Here again, and in most cases, the aggressors are not co-workers but individuals who do not belong to the organization (Leonard and Sloboda, 1996). The majority of crimes which result in death are related to holdups or similar crimes (Baron and Neumann, 1996). The professions which are the most exposed

include taxi drivers, policemen or secret service agents, gas station attendants and security guards. Moreover, men are more often victims of such violent acts compared to women (Jenkins, 1996; Kraus, 1987; Rutter and Hine, 2005).

The statistical data available for European countries is not very accurate either (Beale et al., 1996; Chappell and DiMartino, 2000). The European Foundation for the Improvement of Living and Working Conditions (2000) estimates that 4% of the employees in the European Union are victims of physical violence carried out by individuals who do not belong to the organization and 2% are victims of physical violence carried out by co-workers. This data corresponds to the results of a study done by this foundation in 1996 and published in 1997 (Salminen, 1997). From a differential perspective, the influence of the field of work and the sex of the victim have been shown.

Although every enterprise or employee is potentially exposed to the risk of becoming a victim of violent acts (Collins et al., 1987), certain professions and workplaces are more particularly exposed. Hence, the employees in the health sector, in education and in industry represent groups at a higher risk as do employees in the law enforcement sector. These risk groups have been particularly studied by Flannery (1996), Baron and Neumann (1998) and Watson et al. (2001).

According to Hurrell et al. (1996), the employees in the health sector would be most often concerned by physical violence entailing injuries (Bulatao and VandenBos, 1996) and, furthermore, almost two-thirds of all the attacks reported (which did not result in the victim's death) took place in the health setting. Here too, differences exist in the different fields of health (Sullivan and Yuan, 1995). Poster and Ryan (1994) have shown that 26% of the nurses that were questioned had been threatened at least once by a patient with a weapon or a contaminated syringe (Lanza, 1996). In a representative sample of Swedish nurses, Arnetz et al. (1996) have shown that 29% of them have already been exposed to physical violence and 35% have been threatened with psychological violence. Similar results have been found by Whittington et al. (1996). As for psychologists, 39.9% of those interviewed by Guy et al. (1990) have indicated that they have already been attacked once by one of their patients.

Guterman et al. (1996) have interviewed American and Israeli social workers who have frequent professional contact with clients with case histories of violence. Twenty percent of the social workers indicated that they had already suffered physical violence or received threats at least once. Moreover, 6% of the American social workers and 1% of the Israeli social workers indicated that they had been confronted by sexual violence. Schulte et al. (1998) have shown that 12% of the social workers active in the field of public health had been threatened at least once with a weapon, that 4% had suffered physical violence and that 1% had been victims of rape (Jayaratne et al., 1996). Skarpaas and Hetle (1996) have reported that 20.9% of the Norwegian social workers had already been victims of physical violence or had been threatened with physical violence in the workplace. Safran and Tartaglioni (1996) have indicated that almost half of all the employees

of the American penitentiary system claim to have been the subject of at least one attack by a prisoner which entailed injuries.

While men, on average, are more affected by physical violence than women (Warchol, 1998), distinct differences exist between the two sexes concerning the professional field and the type of violence. Women who work in the field of education and in the penitentiary system are more often victims of violent acts than men (Fischer and Gunnison, 2001). Men are more often victims of serious injuries while women are more often victims of sexual violence and rape (Craven, 1997; Crowell and Burgess, 1996).

The admissions and self-reports of the actors of physical violence are rare. Only 1 to 2% of the employees have admitted to committing an act of physical aggression (Boye and Wasserman, 1996; Slora, 1991). Nevertheless, Latham and Perlow (1996) have shown that, during the year in which they studied a population of health care professionals in psychiatry, 12% of them were dismissed for having subjected the patients to violent treatment.

3. Causes of physical violence

Four groups of causes in the manifestation of physical violence are generally distinguished (Einarsen, 1999; Zapf, 2004):

- 1 causes linked to the institution itself (its management, internal work organization);
- 2 causes linked to the aggressor;
- 3 causes linked to victim himself (personality);
- 4 and causes linked to the social group and the community (group pressure).

We will not consider here the explicit differentiation of the forms of physical violence concerning the relation which exists between the aggressor and the organization (cf. chapter on definitions; Braverman, 1999). The empirical data currently available is reported for the majority of the cases of type 3 causes of violence (between co-workers).

3.1. Causes linked to the organization

The structure of the organization (that is, the degree of complexity), of bureaucratization or of centralization or of the social structure which can provoke the manifestation of violence (Tobin, 2001), the climate or the culture of the organization have been studied in order to explain violence (Sperry, 1998).

The absence of social support on the part of hierarchical supervisors as well as co-workers increases the risk of being subject to physical threats in the workplace (Cole et al., 1997). Likewise, the stress linked to work (Barling, 1996; Warshaw and Messite, 1996) as well as the perception of injustice (Folger and Baron, 1996; Baron et al., 1999; Glomb, 2002; Kennedy et al., 2004) have been shown to be organizational factors in relation to the manifestation of violence in the workplace.

The role of uncertainty concerning job stability represents a causal factor which is currently under debate. While Barling

(1996) has shown a relationship between a lack of job security and aggressive behaviors, Greenberg and Barling (1999) were not able to confirm this relation.

However a large number of results exist concerning the influence of the layout/nature of the work station. Thus, in the context of security guards or transporters of funds, the acts of violence on the part of clients are more frequent when there are individual job stations (Castillo and Jenkins, 1994; Kraus, 1987).

3.2. Causes linked to the aggressor

The overall relationship between the consumption of alcohol and aggressive behavior is well-known. It has been widely documented by research in general (Krahé, 2001) and also more particularly concerning physical violence in the workplace (Bennett and Lehman, 1996; Greenberg and Barling, 1999; Gustafson, 1991; Warshaw and Messite, 1996).

Victimization experienced in the past – during childhood or in the professional environment – are also important predictors of violent behaviors towards co-workers and supervisors (Greenberg and Barling, 1999; Jockin et al., 2001; Douglas and Martinko, 2001).

Numerous personality factors have been studied in relation to violence. Thus, low self-esteem (Barling, 1996), irritability (Caprara et al., 1994), insufficient control of impulsions (Hynan and Grush, 1986), pronounced Type A behavior (Baron et al., 1999) as well as a strong tendency to become annoyed – particularly when it is combined with weak self-control (Allcorn, 1994; Douglas and Martinko, 2001) – have been proven to be particularly important predictors of violent behaviors in the professional environment (Hepworth and Towler, 2004).

3.3. Causes linked to the victim

A high level of alcohol consumption by the victim also increases his risk of victimization (McFarlin et al., 2001). Moreover, recent studies lead one to assume that the individuals who present burnout symptoms would also be more prone to threats and physical violence in the workplace (Winstanley and Whittington, 2002).

Finally, the absence of strategies adapted to resolve conflicts constitutes an important risk factor, particularly concerning individuals who occupy a lower level in the hierarchy of an enterprise (Aquino, 2000) and have a low self-image (Harvey and Keashley, 2003).

3.4. Causes linked to the society

In particular, changes in the job station as well as in the environment or the social status which result from them can lead to greater aggressiveness among employees (Baron and Neumann, 1996). In a global approach to society, Elliot and Jarrett (1994) refer to the potential role played by the economic climate and multicultural situations.

In modeling the structure of regressive reaction, Neuman and Baron (1998) identify the principal factors which condition

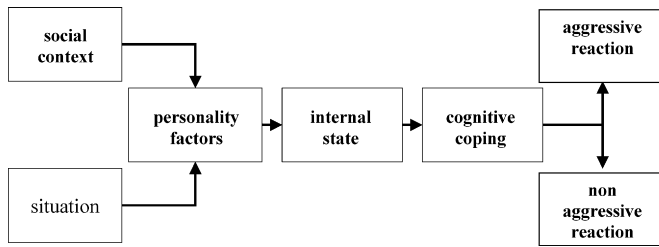


Fig. 1. Theoretical model of aggression in the workplace by Neuman and Baron (1998).

aggression in the workplace and show the theoretical relationship between them. In addition to social determinants (unfair treatment, frustration, increase in the diversity of work tasks, normative behavior and transgressing the norms), situational factors (changes in the work station, environmental constraints such as heat, noise, etc.) which, when associated with certain personality factors (Type A behavior, self-monitoring and hostile attribution bias) are likely to provoke a state of unpleasant feelings. Following cognitive coping strategies, this state of unpleasant feelings and hostile thoughts (internal state) hypothetically results in behaviors which are either aggressive or non aggressive (Fig. 1).

Baron et al. have conducted research to validate their model. They have shown, in particular, that a change in the organization of work, the perception of injustice, as well as Type A behavior can lead to significantly more frequent aggressive behaviors in the workplace (Baron and Neumann, 1996; Baron et al., 1999).

4. Consequences of violence

The consequences of physical violence prove to be extremely diverse. In addition to direct consequences, a multitude of other so-called indirect consequences are reported (Barling, 1996). The difference between the consequences concerning the organization, individual consequences and social consequences can be made on this subject (Hoel et al., 2001). Effects on health can be found on each level.

4.1. Consequences concerning the organization

The after-effects of physical violence are manifested both on the level of the productivity and the competitiveness of the enterprise, for example, by an increase in absenteeism (Southerland et al., 1997; Warshaw and Messite, 1996). The extent of the economic prejudice to organizations caused by acts of violence is difficult to evaluate. While direct economic and material prejudice can be calculated (Walter, 1993), it is hardly possible to anticipate it and hence neither to calculate all of the long-term and indirect effects on the organization, nor to anticipate all of the psychological and health-related consequences that a violent act will have on the individual concerned (Brakel, 1998; Elliot and Jarrett, 1994). The costs following a reduction in productivity due to psychological traumas, which still persist, can be considerable (Jenkins et al., 1992).

The process of recovering one's psychological equilibrium in the workplace or one's capacity to work can lead to a decrease in

the commitment to the enterprise (Rogers and Kelloway, 1997; Schat and Kelloway, 2000), by a withdrawal from activities unrelated to professional activities (Barling et al., 2001; Mantell and Albrecht, 1994), by dissatisfaction concerning one's job (Budd et al., 1996; Discroll et al., 1995) or even by the search for a new job or a new work station (LeBlanc and Kelloway, 2002).

4.2. Individual consequences

In addition to concrete physical injuries, psychosocial consequences are particularly observed among victims of physical violence (Greve, 2002; Ruback and Thompson, 2001). Exaggerated reactions to stress and especially the fear of enduring other attacks (Barling et al., 2001; Rogers and Kelloway, 1997) often lead to health problems (depression, psychosomatic disorders) among victims of physical violence (Budd et al., 1996; Hoel et al., 2001; Hurrell et al., 1996).

In 10 to 18% of cases, victims will develop symptoms which meet the criteria of Posttraumatic Stress Disorder (PTSD; Flannery, 1995; Warshaw and Messite, 1996; Teegen, 2002). PTSD is defined by the simultaneous presence of symptoms belonging to three distinct groups of symptoms (ICD-10, 1994):

- avoidance symptoms:
 - avoiding situations, activities, thoughts and feelings linked to the experienced traumatic event,
 - a state of emotional inflexibility or deafness,
 - a limited affective scope;
- intrusions:
 - painful memories concerning the traumatic event which frequently fill one's thoughts,
 - nerve-racking dreams or nightmares,
 - flashbacks;
- hyperactivation:
 - impossibility to relax, sleep problems, concentration and memory problems,
 - fear and irritability;
- moreover, a loss of interest in activities done beforehand, feelings of guilt or physiological reactions (heart palpitations, high anxiety) can appear.

PTSD often appears with associated disorders (comorbidity): anxiety, depression, somatic problems, personality disorders (Deering et al., 1996; Maercker, 2003) or suicidal tendencies. It has also been shown that the individuals concerned show a higher rate of professional problems caused by the damage linked to the symptoms themselves (irritability, avoidance behaviors, etc., Barling, 1996; Maercker, 1998). The reduction in concentration and self-esteem, as well as social withdrawal, particularly have a negative effect concerning work (Brady, 1999). Posttraumatic reactions as well as negative effects concerning work have been observed among bank employees who were victims of a holdup as well as among workers in other areas (De Boer et al., 1999; Miller-Burke et al., 1999; Tarquinio et al., 2004b).

4.3. Social consequences

In addition to the costs to the organization, the costs to the society must also be mentioned. The excess spending by the health system and/or the social system caused by long-term treatments of traumas as well as work absenteeism for long periods or early retirement can be considerable (Barling, 1996; Chappell and DiMartino, 2000). Regarding traumatic experiences, we must point out that it is not only the victims, but also the witnesses of violent acts who react with similar symptoms and who should be treated (Rogers and Kelloway, 1997; Leather et al., 1998).

On the level of social interactions, inappropriate reactions on the part of the victim's family and friends in particular (manifested distress, inadequate help, isolating the victim) can lead to a secondary victimization (Montada, 1988).

5. Concepts and preventive measures

The interventions and the strategies at issue in the context of the prevention of physical violence in the workplace are destined to prevent the manifestation of violent acts as well as to minimize the negative consequences. The measures can be differentiated depending upon the exact moment when they are implemented as well as the field or target group which they aim at. The measures prior to the incident are destined to prevent the recurrence of the violent act. Peek-Asa et al. (2004) have shown that with their "workplace violence prevention programme", consisting of individual consultations, brochures and a video, the frequency of violence could be significantly reduced. The aim of some of the counseling sessions search for preventing injuries during an attack. Finally, counseling how to manage situations following violence aims to minimize the damage caused by this violence (Runyan et al., 2000). The areas targeted by this counseling deal with both the reorganization of the physical environment and decision making on the management level of an organization, or even change on the level of its members' behavior.

5.1. Measures concerning the physical environment

In addition to punctual measures destined to optimize security (Flannery, 1995), the Crime Prevention Through Environmental Design (CPTED) program has been implemented particularly in the retail business. This program is destined to reduce the occurrence of attacks by architectonic changes in the work environment. Based on an analysis of 26 evaluation studies of the CPTED, Casteel and Peek-Asa (2000) have shown that the use of this vast program of prevention (which takes into account surveillance of the work station, the itinerary to get there, the choice of the location of the activity, the organization of the work station, etc) reduces the number of attacks by between 12 and 65% (Peek-Asa et al., 2001).

5.2. Measures concerning the management of an organization and the behavior of members of an organization

The target group of the intervention can be either the aggressor, the victim, the social circle or the organization (Runyan et al., 2000). Four different starting points in preventive interventions linked to the organization, which are carried out in the workplace, are distinguished:

- measures taken in the context of hiring personnel;
- measures concerning company policy and the climate of the organization;
- tips and training sessions for the employees and the supervisors;
- and lay-offs or dismissing employees (cf. Howard, 2001; Neuman and Baron, 1998; Chappell and DiMartino, 2000).

5.2.1. Measures in the context of hiring personnel

This step includes different procedures which permit the identification of a potential aggressor before he enters an enterprise. However, job application forms are rarely instructive or revealing in this respect (Howard, 2001). Moreover, filtering out potential aggressors using a questioning technique alone proves to be difficult (Atkinson, 2001; Lanyon and Goodstein, 2004; Slora et al., 1991).

5.2.2. Company policy and procedure in case of violence

The principal aim here is to create an organizational climate to prevent violence. This can be made possible by determining a unanimous position of the enterprise against all acts of violence, as well as by the existence of a clear interior regulation which provides the application of sanctions in case of fault. As examples, we note the famous policy of "zero tolerance", the recognized procedures to be applied in case of incorrect behavior, the posting of easily understood disciplinary sanctions, the existence of a procedure for dealing with complaints or rules of behavior.

Moreover, unsparing organizational support following a violent event can reduce the negative consequences on the social climate and on the functioning of the enterprise (Schat and Kelloway, 2003).

5.2.3. Counseling and training measures for employees and management

The measures in this area are based on the employee's capacity to recognize warning signals (Mantell and Albrecht, 1994) or to behave in an appropriate manner in violent situations. In this context, Grenyer et al. (2004) have positively evaluated a program in which the supervisors learn how to deal with violent situations. Kinney (1996) has developed a training program to recognize threatening situations. Breakwell (1998) shows different methods for behaving when faced with external violence on the part of employees.

Moreover, different training for communication and stress management are proposed in an attempt to manage trying and conflict situations (Flannery, 1995). Thus, programs which aim

at learning to control one's emotions and anger have been proposed in order to help potential authors of violent acts manage threatening situations (Allcorn, 1994; Schwenkmezger et al., 1999). In the framework of the Employee Assistance Programs (EAPs), employees are offered the possibility of being aided by professional councilors in order to find solutions for conflicts.

Furthermore, different programs, with the aim of preventing the development of posttraumatic stress syndrome among victims of violent acts, have been evaluated. Flannery et al. (1995) tested the Assaulted Staff Action Program (ASAP) on hospital personnel. This program of crisis intervention is created with the employees in order to elaborate measures that reduce posttraumatic effects. A certain number of employees thus learn how to carry out a debriefing and to propose help to victims of violent acts within 20 min of the event. The authors of the program have shown that its use has produced a positive effect in relation to maintaining job efficiency and helps to reduce violent acts in the hospital (Flannery et al., 1996; Flannery, 2000). Another program was used by Steffgen et al. (2002) for the prevention of posttraumatic stress syndrome among bank employees after a holdup. The program essentially proposes diagnostic screening and offers psychological counseling derived from the principles of cognitive-behavioral therapy. It is based on the Critical Incident Stress Debriefing Programme – CISD by Mitchell (1983) and the crisis intervention program by Manton and Talbot (1990). The participants in the training program reported a significant reduction in the symptoms of PTSD in comparison to a control group (Tarquinio et al., 2004b).

5.2.4. Laying-off/dismissing an employee

Acts of violence often occur in situations of rescinding a job contract, in dismissals, or when there is change due to delocalization of the company. The feeling of injustice, which is likely to entail violent reactions, could be reduced by offering an “outplacement” service.

Taking into account the complexity of the problem, the organizations show a preference for programs with multiple components (Warshaw and Messite, 1996). The United States Postal Services has therefore developed a program to prevent violence which combines measures in the context of hiring personnel (through screenings and hiring tests), security, company policy, the climate of the organization, the support offered to employees and by dismissing violent employees (Anfuso, 1994; Kurutz et al., 1996). Mantell and Albrecht (1994) has developed a similar program in which seven stages are distinguished:

- screening;
- perceiving signs of risk;
- rules of behavior;
- behavioral training;
- counseling, coaching;
- optimization of security measures;
- follow-ups.

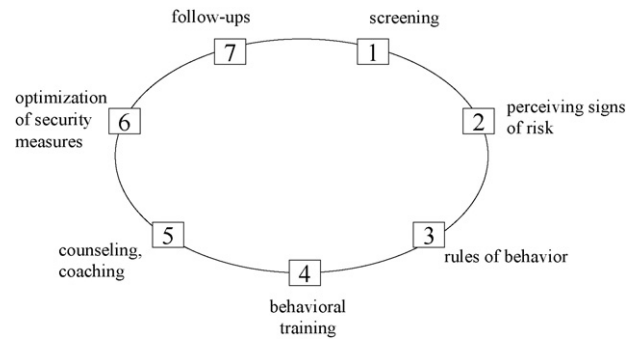


Fig. 2. Seven stages for preventing violence in the workplace by Mantell and Albrecht (1994).

These elements are then combined in function of the needs anticipated for the prevention of violence (Fig. 2).

Cox and Leather (1994) consider the implication of the entire organization to be indispensable in the prevention of violence. Nicoletti and Spooner (1996) have developed a three-phase model with this goal in mind. During the first phase, the organization is asked to document and eventually take into account all of the imaginable measures and actions to prevent violence, particularly in the context of hiring or firing an employee. In the second phase, the employees are trained to appropriately manage threatening or violent situations. Finally, during the third phase, they are taught the procedures to follow when a violent act has been committed.

6. Conclusion

Very little research has been done to date on the evaluation and the comparative evaluation of the different programs or measures of prevention proposed. Initially, it seems that the measures centered on the organization and programs with multiple components are more promising than the measures centered on the individual and programs with a single component (Runyan et al., 2000). In any event, it appears necessary to extend research on the evaluation of these programs (Farrell and Cubit, 2005).

It must be noted that only a small percentage (8.8%) of enterprises claim to follow strategies for the prevention of physical violence. Most organizations take measures only after a violent incident (Howard, 2001). The measures most often used include screening in the context of hiring procedures, Employee Assistance Programs as well as hiring security guards (Bush and O'Shea, 1996). Nevertheless, an enterprise's interest in acting preventively against the occurrence of violence can be activated or increased by legal measures (Barish, 2001; Chappell and DiMartino, 2000).

Finally, the lack of exchange between researchers who are insufficiently aware of the results and developments of their colleagues' research on the prevention of violence in sectors or areas which are different from their own is regrettable. Thus, for example, part of the research on school violence is of certain potential interest for research on violence in the workplace (Steffgen, in press).

The Six-Strategy USPS Violence Prevention Program.

The United States Postal Service (USPS) has developed a six-strategy model that is designed to access and engage all of the major resources within the Postal Service related to violence prevention. The model focuses on prevention and early intervention. The strategies include:

1. *Selection.* The goal of this strategy is to ensure that the USPS employs the right persons.
2. *Security.* Both security teams as Postal facilities and law enforcement professionals from the Inspection service and Postal Police play critical roles in prevention and intervention.
3. *Policy.* The Postal Service, its unions and management associations authored a joint statement on violence in the workplace that includes an unequivocal commitment to “do everything within our power to prevent further incidents of work-related violence.” The joint statement also affirms the right of all employees to a “safe and humane working environment”.
4. *Climate.* The Employee Assistance Program (EAP) is involved particularly with organizational development interventions that are designed to ensure a safe and healthful workplace and positive corporate culture.
5. *Employee support.* The EAP is committed to early identification and prompt intervention, allowing problems to be dealt with before they escalate to the point to loss of behavioral control.
6. *Separation.* The USPS is actively involved in the refinement of procedures designed to make the termination process safer and more effective. The EAP becomes actively involved if an individual being terminated requires support and assistance, or if he or she may represent a potential threat to self, other individuals, or the organization.

(Kurutz, Johnson & Sugden, 1996, p. 348 ff).

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