

Work-related Violence against Security Guards—Who is Most at Risk?

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Abstract: Studies on violence in the work of security guards are largely lacking. This study is unique in that it focuses on security guards (n=1,010) in Finland, and assesses the different forms, prevalence, and risk factors of the work-related violence they often face. Information to a survey instrument was obtained by first interviewing 30 volunteers. Then we made a cross-sectional mailed survey that was sent to a randomized group of 2,000 security guards. The response rate was 52. We found the prevalence of verbal aggression, threats of assault, and physical acts against security guards at least once a month to be 39%, 19%, and 15% respectively. As regards risk factors and who is most at risk, our results show that male gender, young age, low work experience, late working hours, and time pressure were associated with all three forms of work-related violence. Unlike other forms of violence, verbal aggression was highly prevalent outside the metropolitan area and directed towards both more and less experienced security guards. In prevention policies for violence, it is important to identify high-risk groups such as those who have less work experience.

Key words: Work-related violence, Verbal aggression, Threats of assaults, Physical acts, Security guard

Introduction

It is important to understand the fact that always when people meet violence their health is in danger¹). In the work context, the term violence refers to any threat or violent act, physical and/or psychological in nature that is directed towards a person while at work²). The European Commission has used the term ‘work-related violence’ instead of term ‘violence’ and defines it as follows: “*Work-related violence refers to incidents where persons are abused, threatened or assaulted in circumstances related to their work, involving an explicit or implicit challenge to their safety, well-being and health*”³). Work-related violence is now widely recognized as a major increasing occupational health hazard for many organizations and employees the world

over^{4–9}). Studies have also shown how the effects of workplace violence on individuals’ physical and psychological health can be serious, and expensive to organizations^{6, 7, 10–12}).

Factors associated with work-related violence are male gender among, for instance police officers, taxicab drivers, social workers, those working in jail settings¹³), young age among for example environmental health officers¹⁰) and different professions in the health sector^{14, 15}); both time pressure¹⁶) and lack of experience at work^{6, 14}) among different professions in the health sector; late working hours among environmental health professions¹⁰), and for police officers, working in metropolitan areas¹³).

In Finland, the latest national victimization survey¹⁷) informs us that security guards constitute a high-risk occupation for workplace violence, together with occupations such as mental health nurses, jailers and police officers. International studies on violence and the asso-

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ciated risk factors in security guards' work are scarce. We are aware of only three studies, none of which was carried out in Finland. Two of these dealt with burnout symptoms and their associations with critical incidents such as death threats, injuries, assaults, or hold-ups in security guards' work^{18, 19}). The third study²⁰) dealt with the relationships between job performance and subjective mental workload in a sample of security guards.

The effects of workplace violence on individuals can be seriously damaging to physical and psychological health and expensive to organizations^{6, 7, 10–12}). It is important to know about the different forms of violence, their prevalence rates, and who exactly among security guards is most at risk. This is vitally important for planning prevention policies against violence. Because of the nature of work in security guarding (to guarantee that citizens follow law and order in society), security personnel may be at an increased risk of violence from citizens. Therefore we chose to focus in this study on violence that comes from citizens.

The purpose of this study was:

- 1) To examine the different forms and prevalence of workplace-related violence against Finnish security guards.
- 2) To find the individual and work-related risk factors of violence at work.

Subjects and Methods

Participants were informed about voluntary and confidential characteristic of the study by an information leaflet, and the study plan was approved by the Ethics Committee of the Finnish Institute of Occupational Health. The study was conducted according to the ethical standards of the Declaration of Helsinki.

In order to obtain information regarding the forms of work-related violence that security guards have encountered in their jobs, we began data collection in 2002, with interviews of 30 volunteers; some had often encountered work-related violence; others had experience of only minor incidents or threats that calmed down. We created a questionnaire on the basis of these structured interviews, which sought to measure exactly the kinds of work-related violence the interviewees have been subjected to. By doing this, we were able to differentiate three forms of work-related violence; verbal aggression, threats of assaults and physical acts. We asked the staff managers of both organizations to ask the security guards who had encountered threats and violence during their work to voluntarily take part in interviews. These volunteers consisted of 26 men and 4 women, aged 21–64 (mean age 30 yr), and with work experience of between 1 and 28 yr (mean work experi-

ence six years). The interviewer asked the participant to first describe any threatening situation he/she had experienced, and then after a break, to talk about a violent situation, which had occurred during the last 12 months. A threatening situation was defined as a situation that later calmed down. A violent situation was defined as a situation during which the security guard had to use force or was directly attacked by a citizen. Work-related violence items were formed based on the information collected from the interviews. For instance, in most interviews, hitting and kicking were frequently mentioned. These interviews gave us important information regarding typical verbal aggression, threats of assaults and physical acts that citizens directed towards security guards and thus led to the development of our mailed survey instrument.

The sample of 2,000 security guards was randomized from a representative sample ($n=3,592$) of the two largest security guards company in Finland. The total number of security guards in Finland was about 5,500 in 2002. A postal survey in the form of a postage-paid return envelope with a questionnaire with no incentives was sent out in 2003 to security guards' home addresses which were obtained from the employer organizations. The mailing was one-time mailing, but we if did not get an answer during three weeks, we sent a reminder and gave two weeks more time to send back the questionnaire.

However, we found that 71 employees no longer belonged to the eligible sample because they had left the organization. Organizations gave us information that those security guards who had left the organization were either working only periodic time during their studies or they were already retired. The final study sample consisted of 1,929 employees. Because 919 did not answer the questionnaire, the final study population was 1,010 respondents resulting the response rate of 52%. Figure 1 presents the sample attrition.

Verbal aggression

Work-related violence in the form of verbal aggression was measured by asking "How often have citizens directed the following verbal aggression towards you in the last 12 months?" This question was followed by a list of items of verbal aggression (e.g. swearing and shouting and abuse) and included options from 1 to 6 for the frequency of violent acts during the last 12 months: 1=never, 2=once or twice, 3=more than twice, 4=once a month, 5=once a week and 6=daily. We formed a dichotomous 'verbal aggression' from the variables of swearing and shouting and abuse (0=verbal aggression less than once a month, 1=verbal aggression at least once a month).

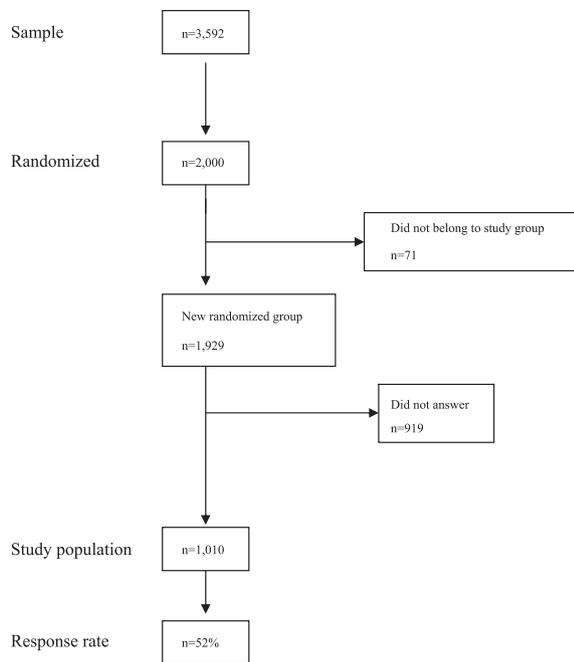


Fig. 1. Sample attrition among security guards.

Threats of assault

Work-related violence in the form of threats of assault was measured by asking “How often have citizens directed the following threats of assault towards you in the last 12 months?” This question was followed by a list of items (e.g. threats of hitting and kicking, threats to break property and threats with a striking weapon) and included options from 1 to 6 for the frequency of violent acts during the last 12 months: 1=never, 2=once or twice, 3=more than twice, 4=once a month, 5=once a week and 6=daily. We formed a dichotomous ‘threats of assaults’ variable from the variables of threats of hitting and kicking, threats to break property and threats with a striking weapon (0=less than once a month, 1=at least once a month).

Physical acts

Work-related violence in the form of physical acts was measured by asking “How often have citizens directed the following physical acts towards you in the last 12 months?” This question was followed by a list of items (e.g. struggling to get free, wrestling and hitting and kicking) and included options from 1 to 6 for the frequency of physical acts during the last 12 months: 1=never, 2=once or twice, 3=more than twice, 4=once a month, 5=once a week and 6=daily. We formed a dichotomous ‘physical acts’ variable from the variables of struggling to get free, wrestling and hitting and kicking (0=less than once a month, 1=at least once a month).

Statistical analyses

Binary logistic regression models were used to calculate adjusted odds ratios (ORs) and their 95% confidence intervals (CIs) separately for three forms of work-related violence. Both univariate models and multivariate models were carried out. In the multivariate models we controlled gender, age, work experience, population density, work shifts and time pressure. All analyses were performed using the SPSS 17.0 statistical program.

Results

Characteristics of participants

Of the sample of 1,010 security guards, 221 (22%) were women and 789 (78%) men. The mean age of male security guards was 31 (SD=11.0) and that of female security guards 28 (SD=8.7). The men had been working as security guards for a mean of 3 yr (SD=1.5) and the women for a mean of 2.4 yr (SD=1.2). Of the male security guards, 10% and of the female security guards, 15% had worked for less than one year in their present occupation.

Verbal aggression

The forms of verbal aggression most often experienced were swearing and shouting (82%), and abuse (75%). A total of 39% encountered verbal aggression at least once a month. The corresponding prevalence was 24% among women and 43% among men (Table 1). Male gender, age below 35, work experience of less than nine years, working in a metropolitan area, working shifts other than day shifts, and being under time pressure were associated with verbal aggression in the univariate models. In the fully adjusted multivariate models, statistically significant factors associated with verbal aggression were male gender, an age of under 35, work experience of less than nine years, working morning and evening shifts, and being under time pressure.

Threats of assault

The forms of threats of assaults most often experienced were threats of hitting and kicking (53%), threats to break property (8%), and threats with a striking weapon (such as a stick or a bottle) (2%). Of the guards 19% experienced threats of assault at least once a month (5% of women and 23% of men) (Table 2). Male gender, age below 35, work experience of less than nine years, working in a metropolitan area, working morning and evening shifts, and being under time pressure were associated with threats of assaults in the univariate models. In the fully adjusted multivariate models, statistically significant factors associated with

Table 1. Associations of gender, age, work experience, population density, work shifts, and time pressure at work with frequent exposure to verbal aggression against safety guards (N=1,010), Helsinki, 2003

	N/n (cases)	Odds ratio (95%CI), UNIVARIATE MODEL	Odds ratio (95%CI), MULTIVARIATE MODEL
Gender			
Women	221/53	1.00 (ref.)	1.00 (ref.)
Men	789/341	2.41 (1.72–3.39)	3.28 (2.15–5.00)
Age			
35 or over	268/61	1.00 (ref.)	1.00 (ref.)
25–34	339/134	2.22 (1.55–3.18)	1.76 (1.08–2.86)
24 or less	403/199	3.31 (2.34–4.68)	2.61 (1.52–4.49)
Work experience			
10 yr or over	166/34	1.00 (ref.)	1.00 (ref.)
4–9 yr	473/108	3.08 (1.96–4.85)	2.84 (1.61–5.00)
less than 4 yr	244/212	3.15 (2.08–4.79)	2.41 (1.32–4.40)
Population density			
other cities	440/157	1.00 (ref.)	1.00 (ref.)
metropolitan area	553/233	1.31 (1.01–1.70)	1.30 (0.96–1.78)
Work shifts			
day shift	183/42	1.00 (ref.)	1.00 (ref.)
evening and/night shifts	277/94	1.72 (1.13–2.64)	1.18(0.71–1.96)
morning and evening shifts	260/143	4.10 (2.69–6.26)	3.10 (1.89–5.09)
all three shifts	254/100	2.18 (1.42–3.34)	1.61 (0.97–2.65)
Time pressure			
never or seldom	370/106	1.00 (ref.)	1.00 (ref.)
every now and then	367/163	1.99 (1.47–2.70)	1.85 (1.29–2.65)
often	265/123	2.16 (1.55–3.00)	2.84 (1.90–4.26)

Table 2. Associations of gender, age, work experience, population density, work shifts, and time pressure at work with frequent exposure to threats of assaults against safety guards (N=1,010), Helsinki, 2003

	N/n (cases)	Odds ratio (95%CI), UNIVARIATE MODEL	Odds ratio (95%CI), MULTIVARIATE MODEL
Gender			
Women	221/12	1.00 (ref.)	1.00 (ref.)
Men	789/178	5.07 (2.77–9.29)	5.49 (2.82–10.67)
Age			
35 or over	268/28	1.00 (ref.)	1.00 (ref.)
25–34	339/58	1.77 (1.09–2.87)	1.28 (0.69–2.40)
24 or less	403/104	2.98 (1.90–4.68)	2.51 (1.27–4.95)
Work experience			
10 yr or over	166/12	1.00 (ref.)	1.00 (ref.)
4–9 yr	473/60	4.19 (2.17–8.06)	2.12(0.93–4.85)
less than 4 yr	244/98	3.35 (1.79–6.29)	3.93(1.82–8.49)
Population density			
other cities	440/60	1.00 (ref.)	1.00 (ref.)
metropolitan area	553/130	1.95 (1.39–2.72)	2.22 (1.51–3.28)
Work shifts			
day shift	183/24	1.00 (ref.)	1.00 (ref.)
evening and night shifts	277/39	1.09 (0.63–1.88)	0.81 (0.42–1.55)
morning and evening shifts	260/75	2.69 (1.62–4.46)	2.10 (1.15–3.84)
all three shifts	254/47	1.50 (0.88–2.56)	1.02 (0.54–1.92)
Time pressure			
never or seldom	370/54	1.00 (ref.)	1.00 (ref.)
every now and then	367/86	1.79 (1.23–2.61)	1.66 (1.08–2.57)
often	265/50	1.36 (0.89–2.08)	1.83 (1.12–3.00)

Table 3. Associations of gender, age, work experience, population density, work shifts, and time pressure at work with frequent exposure to physical acts against safety guards (N=1,010), Helsinki, 2003

	N/n (cases)	Odds ratio (95%CI), UNIVARIATE MODEL	Odds ratio (95%CI), MULTIVARIATE MODEL
Gender			
Women	221/13	1.00 (ref.)	1.00 (ref.)
Men	789/140	3.45 (1.92–6.22)	5.24 (2.44–11.27)
Age			
35 or over	268/20	1.00 (ref.)	1.00 (ref.)
25–34	339/52	2.25 (1.31–3.87)	1.48 (0.73–2.97)
24 or less	403/81	3.12 (1.86–5.23)	2.58 (1.20–5.51)
Work experience			
10 yr or over	166/11	1.00 (ref.)	1.00 (ref.)
4–9 yr	473/47	3.36 (1.69–6.70)	1.53 (0.63–3.71)
less than 4 yr	244/78	2.78 (1.44–5.37)	2.67 (1.17–6.08)
Population density			
other cities	440/38	1.00 (ref.)	1.00 (ref.)
metropolitan area	553/113	2.72 (1.84–4.02)	2.80 (1.80–4.36)
Work shifts			
day shift	183/17	1.00 (ref.)	1.00 (ref.)
evening and/night shifts	277/28	1.10 (0.58–2.07)	1.06 (0.49–2.26)
morning and evening shifts	260/66	3.32 (1.88–5.89)	2.92 (1.45–5.89)
all three shifts	254/37	1.67 (0.91–3.06)	1.45 (0.70–3.04)
Time pressure			
never or seldom	370/47	1.00 (ref.)	1.00 (ref.)
every now and then	367/76	1.80 (1.21–2.67)	1.62 (1.02–2.57)
often	265/30	0.88 (0.54–1.43)	1.09 (0.62–1.93)

threats of assaults were male gender, age below 25, work experience of less than four years, working in a metropolitan area, working morning and evening shifts, and being under time pressure.

Physical acts

The physical acts most often encountered were struggling to get free (51%), wrestling (29%) and hitting and kicking (27%). As many as 15% experienced physical acts of violence at least once a month (6% of women and 18% of men) (Table 3). Male gender, age below 35, work experience of less than nine years, working in a metropolitan area, working morning and evening shifts, and being under time pressure every now and then were associated with physical acts in the univariate models. In the fully adjusted multivariate model, statistically significant factors associated with physical acts were male gender, age below 25, work experience of less than four years, working in a metropolitan area, working morning and evening shifts, and being under time pressure.

Discussion

This study is unique in that it focuses on security

guards and assesses the different forms and prevalence of work-related violence and risk factors for violence. As regards the different forms of work-related violence and their prevalence, and who is most at risk of violence, we examined the three different forms, verbal aggression, threats of assault, and physical acts.

We found that of the security guards, 39% reported experiencing verbal aggression, 19% threats of assaults and 15% physical acts at least once a month. These prevalence rates cannot easily be compared to earlier studies because the measure has most often been the prevalence of incidents at least once during the last 12 months. In addition, the measure often contains verbal aggression, threats, and physical acts altogether. This was the case for example in the latest Finnish victimization survey which found that 5% of employees were victims of workplace violence²¹). The difficulties in comparing results across studies come from inconsistency in what has been considered as workplace violence. Some researchers have focused only on direct physical assaults, whereas others have also included into workplace violence threats of assault, nonphysical acts of aggression and even vicarious violence²²). Others divide work-related violence into physical acts and include into non-physical forms of violence threat, sexual harassment

and verbal abuse²³). In addition, when differentiating fatal violence from non-fatal violence, the focus is on the consequences that violence may cause.

Risk for fatal or physical violence is increased in jobs involving interacting with the public, exchanging money, delivering services or goods, working late at night or during early morning hours, working alone, guarding valuable goods or property, and dealing with violent people or volatile situations^{8, 24}). Risk factors for non fatal or non physical violence include previous exposure to violence²⁵), young age and male gender²³) and in health organizations increased patient contact²⁶). Work-related violence occurs in a specific situation, but broader situational and structural factors shape the context for what takes place and also influence the nature of circumstances²⁵). In addition, exposure to non-physical violence seems to increase the risk of physical violence²⁷). Furthermore, when studying workplace violence, a theoretical model which involves the identification of risk factors at three levels should be used: individual level, which refers to specific factors; workplace level, which refers to situational factors; and organizational level, which refers to structural factors.

We are not aware of national or international studies concerning exact prevalence figures of different forms of work-related violence in security guards work. Former studies on work-related violence have revealed the occupations most at risk for violence in general. In the USA, the statistics of the selected occupations examined from 1993 to 1999 show how police officers were the most vulnerable to work-related violence, followed by occupations such as correctional officers, taxicab drivers, private security workers and bartenders²⁸). In European countries, the risk of experiencing violence has been shown to be greatest in the education and health sectors (15%), as well as the public administration and defence sectors (11%).

However, these statistics did not report the prevalence for security guards²⁹). In the United Kingdom, the latest statistics on violence, from 2006/2007, show that police officers, fire service officers and prison service officers were at greatest risk³⁰). In Finland, the latest national sample survey reported that the most hazardous occupations with regard to exposure to work-related violence were mental health nurses (47%), jailers (38%) and police officers (33%)¹⁷).

In this study, when we focused on security guards and assessed different forms and prevalence of work-related violence and risk factors, we found significant risk factors for all three forms of work-related violence. Among Finnish security guards, the results were consistent with earlier research on different occupational groups, showing associations with male gen-

der^{6, 13, 16, 30, 31}), young age^{6, 10, 13-16}), time pressure at work^{16, 30}), lack of work experience^{6, 13, 14, 16, 30}), and working in high density areas such as metropolitan areas¹³). Thus in the security sector, those at highest risk are young, male, less experienced workers, and those under high time pressure at work.

The results also showed that unlike other forms of violence, verbal aggression was more common outside the metropolitan area and was also directed towards more experienced security guards. This may indicate that learning to calm down a quarrelsome, physically aggressive citizen can take many years, whereas the means to control verbal aggression may not necessarily always be related to guards' work experience.

The result that time pressure was associated with work-related violence may suggest that busy security guards do not have time to listen properly to citizens, and may react too hastily. This, in turn, can have an effect on the way a citizen reacts back. One important predictor of workplace violence has been found to be person-situation interaction³²). It is also possible that in a 'person-situation interaction' some security guards may lack the ability to utilize verbal skills or verbal dexterity to negotiate, or controlled verbal aggression to intimidate³³). Female security guards may more often have these abilities and utilize their verbal skills, thus more often avoiding work-related violence. This may also be due to an unwritten law among citizens that "you cannot hit a woman".

However, what time pressure really means in the work of these two occupations should be studied more deeply, using interviews for example.

The method of first conducting the interviews and then formulating the questionnaire proved to be successful, because the interviews provided important information regarding typical verbal aggression, threats of assaults and physical acts that citizens in Finnish society direct towards security guards. The information provided by the interviews also made the questionnaire more exact. However, the accuracy of questionnaires should be further developed and they should be studied further more deeply, using in-depth interviews and case studies, for example.

The study has some limitations. First, because it was cross-sectional, we are not able to make interpretations of the temporal order between variables. Second, all our measures were based on self-reports, thus causing concern regarding common method bias. Third, the response rate was only 52% and thus the results cannot be generalized for other security guards in Finland. Unfortunately we were not able to do any attrition analysis because no information about non-respondents was available. Fourth, the data are now 8 yr old and thus it

is possible that some aspects of violence against security guards have changed, such as changing technology, economic context and so on.

The strength of the present study was that the study sample was randomized from a representative sample of the two largest security guard companies in Finland. Our sample in year 2002 consisted two largest security guards company in Finland (altogether 3,592 security guards). In 2001, there were 5,783 employees in the Finnish security guard companies, thus our sample represented 62% of the whole population. However, in Finland there are no nationwide statistics available about employees in security companies

In order to protect security guards from unnecessary violence it is highly important to do further evaluations about the risk factors. In future studies, it would also be important to analyze if verbal aggression, threats of assaults or physical acts are associated with psychological morbidity or stress-related behavior. Future research on this topic should also include profiles of citizens who threaten or attack security guards.

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