Occupational Violence in Long Distance Road Transport: a Study of 300 Australian Truck Drivers

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Introduction

There is increasing recognition of violence in the transport industry, principally that from passengers in aircraft and taxis, and between car drivers. Less well recognised is violence experienced by truck drivers. This paper reports on a study of 300 long distance truck drivers whose experiences of violence were explored as part of a broader study into occupational health and safety. Workplace violence is by no means a new phenomenon. After being long ignored, occupational violence has recently received attention from the media, the ILO, some Australian occupational health and safety (OHS) agencies and a few researchers (Chappell & Di Martino 1998; ILO 1998; Gates & Horseman 1995; Jenkins 1996; Nelson & Kaufman 1996; Mayhew & Quinlan 1999).

Attempts to establish the extent of occupational violence, as well as trends over time, are fraught with difficulties because until recently little effort was made to collate data. Further, as Chappell and Di Martino (1998:21) observe, the extent of occupational violence is significantly influenced by whatever definition is adopted. Yet to date there has been no universally agreed definition. Some agencies collate fatalities and assaults that result in medical attention; others include sexual harassment and threatening behaviours. As a result, incidence and severity ratios vary enormously and are frequently not comparable. We believe consistent data collection and coding systems need to be agreed and implemented. The Australian National Occupational Health and Safety Commission (NOHSC 1999:1) defines occupational violence as: '...the attempted or actual exercise by a person of any force so as to cause injury to a worker, including any threatening statement or behaviour which gives a worker reasonable cause to believe he or she is at risk'. In the road transport industry, this definition of occupational violence could be extended to include behaviour by other motorists that affects the driving capacity of a truck driver, such as the throwing of objects or missiles.

As well as manifesting in a number of different forms, occupational violence can vary by industry. Transport industry sub-sectors may attract certain types of violence because of their location, such as train stations located near the haunts of drug addicts. Or, shops at interchange coach stations may be a prime target for armed robbery because of their trading

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hours, cash on hand, and limited security. Those who have close contact with customers (such as bus drivers) or who work with volatile persons (for example, pub courtesy buses or even school buses) are also at increased risk (see Chappell 1998:9-10). Working in isolation increases the risks (as with taxi drivers). Intense production pressures can be additional sources of friction between employers and drivers, or between individual workers and customers (as in freight yards at peak loading times). Overall, the primary determinants of occupational violence appear to be the industry sub-sector of employment, the level of customer/worker contact, whether cash is at hand as an inducement to robberyrelated violence, and the extent of economic and time pressure.

The extent and distribution of occupational violence in the transport industry

Workplace homicide represents the most extreme form of occupational violence. In the United States, homicide is a leading source of death at work. For example, in 1994 homicide caused 16% of the 6,588 fatal work injuries recorded (BLS 1996,1997). Taxi drivers were the most at-risk group. Australia, with its stricter controls on gun-ownership, has experienced a far lower rate of workplace homicide. According to Driscoll et al (1999), occupational homicides were around 2.8% of all traumatic work-related deaths in Australia. Taxi drivers were again one of the highest risk groups.

Non-fatal violence against workers who drive vehicles can take many forms and include abuse, threats, or assaults with fists or weapons. Scientific studies of occupational violence have consistently found increased risks for taxi drivers, particularly abuse and threats from passengers (HSE 1991 cited in Chappell & Di Martino 1998:46,68; Dalziel & Job 1997; Mayhew 1999). Across the Australian states there has been a concerted effort to prevent taxi violence since the early 1990s, with technical engineering solutions the most favoured interventions. Unfortunately consultation with the workforce has been less effective and as a result technical solutions (such as screens) have been less well-accepted (see Chappell 1998:13). Yet preventive interventions are sorely needed. In one study of 100 Australian taxi drivers, 81% had been verbally abused, 17% threatened with an assault, and 10% assaulted by a passenger(s) in the immediate past 12-month period (Mayhew 1999). The severity of injury varied considerably from fractures to a torn shirt. A number of risk factors were identified: the majority of assailants were male (83%), young (75% under age 30), and the majority of assaults (72%) occurred between 6pm and 5am, with alcohol a factor in 59% of incidents. Most were 'hailed' from the street (46%) or from a taxi rank (36.5%) in the inner and near city suburbs (33%). Attacks were infrequently associated with fare evasion (15%) unless drivers chased fare evaders (or 'runners'). No information on occupational violence from on-site administrative or support staff, or other taxi drivers, was elicited. In another substantive study of 1,250 taxi drivers, similar risk factors were identified, with about 90% of incidents unreported (Keatsdale cited Staysafe 1997:4). In contrast, in the United States Chappell (1998:1,39) identified that 184 of every 1000 taxi drivers were threatened between 1992 and 1996 - which was approximately four times the rate for bus drivers. These estimates are likely to be conservative.

In 1995 a study was conducted that identified variations in exposure to occupational violence between standard employee workers and those who were outsourced or subcontractors in the same industry sector (Mayhew et al 1997). This study included 43 heavy vehicle transport workers. In the previous 12 months, employee transport workers regularly experienced verbal abuse (47%), but threats (6%) and assaults (0%) were rare. In contrast, outsourced transport workers were abused less frequently (13%), but threatened (13%) and assaulted (13%) more often. However the low numbers surveyed mean that the findings trends are less reliable.

For truck drivers - precisely because they are working - road rage is a form of occupational violence. Threatening behaviour can be expressed verbally through hand gestures, or by the manner in which other vehicles are driven, for example, tailgating. The term 'road violence' is preferred over the colloquial 'road rage' as it more explicitly locates this form of violence within its true context. That is, road violence is committed against strangers who drive trucks for a living.

Wolfgang and Feracutti (1969:314-315) have argued that attitudes to violence are inculcated within subcultures so that violence becomes a routine way of transacting difficulties and conflicts. The most commonly experienced forms of violence across society in general include verbal aggression, threatening behaviour, street crime and robberies, with assaults and homicide less common. Typical features of perpetrators of various forms of aggression (and criminal violence) are: male, young, inexperienced driver, poor impulse control, low tolerance of frustration, risk taking, substance abuse, Anglo-Saxon origins, fragile ego, frequently unemployed, and may have been drinking (Morgan 1997:3-4,18-25,37; Chappell & Di Martino 1998:56-57,60,64). These characteristics match those of offenders identified in the taxi driver violence study discussed above – as well as those of road rage drivers. It has also been argued that young unemployed males who have a violent and anti-social nature typically commit serious offences on the road. Thus a young male who:

"...lives by the values of the subculture of violence, and who accepts violence as a normal behaviour will carry over this behaviour to the driving situations and that 'accidents' for these people are not accidents but rather intended patterns of subcultural behaviour based on the subcultural values to which they subscribe' (Parsons, cited Morgan 1997:24).

It is not drawing a very long bow to suggest that there may be links between aggressive driving and road violence against truck drivers. Nevertheless, there is very limited scientific evidence about occupational violence in the long haul transport industry. One immediate difficulty is the aforementioned variations in definitions of violence. A second difficulty is that transport workers share their workplace (the road) with a range of other road users who are not 'at work'. Third, many transport workers are self-employed, owner/drivers, or under short-term contracts. Employment status has been previously shown to be an important mediating variable that affects capacity to report injuries and incidents (as workers' compensation insurance cover normally excludes self-employed workers in Australia), and time cost disincentives for bureaucratic reporting procedures that are unlikely to reap significant material rewards (Quinlan & Mayhew 1999).

Road transport is a significant industry sector that employs at least 4.5 per cent of the Australian workforce. Of the approximate 220,000 truck freight fleets operating (including couriers), about 32,000 are 'for hire' fleets (which includes long haul transport). Approximately 70 per cent of the long-haul workforce are self-employed owner/drivers.

Evidence from the survey of 300 long haul transport workers

During May and June 2000, a survey of heavy vehicle transport workers was undertaken across the Australian state of New South Wales (Mayhew & Quinlan, 2000). In all 300 drivers were interviewed face-to-face and completed a detailed questionnaire with closed and open-ended questions. Since there was no conceivable way to obtain a randomised sample of all long haul truck drivers, the sample was selected in as systematic a way as was possible. The results can be seen as indicative of the attitudes, views and experiences of most Australian long haul truck drivers. These drivers were interviewed at a minimum of two truck stops (privately owned road houses that sell food and fuel) or fleet depots

(privately owned transport company loading yards) on the six major state highways; five of which led interstate (Hume, Newell, Pacific, New England, Great Western and Sturt). Each interviewee was asked 'have you been verbally abused, threatened or assaulted at work in the last 12 months (since May 1, 1999)'. Possible response boxes included: 'no', 'verbally abused', 'threatened', 'assaulted', and 'road rage'.

The data were separated out by the type of occupational violence experienced and also by employment status (owner/drivers, small fleet drivers, and those working in larger fleets). However, as can be seen in Table 1, there were marked similarities in occupational violence experiences across the employment status groups (although significant variations were identified for other issues such as working hours and economic stress).

Table 1: Occupational violence experiences of 300 interviewed drivers

	owner/drivers (n=99)	small fleet drivers (n=104)	large fleet drivers (n=85)	other (n=12)
no	45.4%	54.8%	57.6%	66.7%
verbally abused	36.4%	35.6%	25.9%	25%
threatened	10.1%	6.7%	5.9%	8.3%
assaulted	1%	-	1.2%	4.0
road rage	21.2%	19.2%	21.2%	33.3%
total number	54	47	36	4
% with any violent experience	54.5%	45.2%	42.3%	33.3%

Both the verbally abused and the road rage boxes elicited frequent responses. Across the total interviewed population of 300 truck drivers, 32.7% had been verbally abused in the immediately previous 12 month period and 21% experienced road violence, however formal threats (7.7%) and physical assaults (0.7%) were relatively rare. Thus we believe that lower level occupational violence in its various forms is a significant (but poorly recognised) occupational health and safety (OHS) problem for long distance truck drivers. Many accepted this violence as a 'normal' part of doing their job.

The similarity in the incidence and severity ratios across employment status groups (Table 1) suggests that occupational violence is an endemic risk for long distance truck drivers. While owner/drivers had marginally more abuse and threats than did the other subgroups, this is partially explained by the fact that they worked longer hours and were therefore exposed to other motorists and loading agents and customers for greater periods of time.

Discussion

Analysis was conducted on the sources of the occupational violence. Three distinct core types were identified (a) verbal abuse and road violence from other motorists; (b) abuse and threats from staff at freight forwarding or loading yards; and (c) abuse by customers when deliveries were delayed or more expensive than expected. The severity appeared to vary across these three types of occupational violence, with road violence potentially the most severe, and that from customers the least likely to result in a physical assault. In all, 96 (67.1% of all incidents) could be classed as road violence; 23 (16.1%) emanated from staff or bosses at freight forwarding yards or depots; and 14 (9.8%) from customers. A further eight (5.6%) cited Roads and Traffic Authority (RTA) or police harassment of some kind, and two (1.4%) of incidents could not be clearly allocated to one category or another.

The qualitative and quantitative data were examined. It was clear that there were distinctly different causes for the three forms of occupational violence. In all, 141 of the violence victims wrote comments about 143 incidents. The most common occupational violence scenarios are discussed below and illuminated through selected direct quotations. These quotations have been arranged in order of severity. (The numeral at the end of each quotation identifies individual drivers).

Common road violence scenarios

There were consistent similarities in patterns of road violence across the three sub-groups studied (owner/drivers, small and large fleet employee drivers), and on all the highways where interviews were conducted. A number of the road violence incidents were potentially very serious: three had missiles thrown at their windscreens while in transit (interviewee numbers 158,208 & 86), and two had been shot at (20,100). There are also important wider consequences for other road users who can suffer severe consequences from a disabled or disoriented truck driver in charge of a large vehicle possibly driving at the limit of 100 km hour. According to the truck drivers interviewed, car drivers were the most common perpetrators of road violence.

The extent to which individual truck drivers initiated or compounded the road violence is unknown. We have no data about the extent to which drivers themselves were offenders. or precipitated violence. Only one of the interviewed drivers volunteered a comment on self-protection: 'get idiots in cars. Never been assaulted but carry a pick handle in the front of truck' (247, small fleet).

The road violence incidents most frequently occurred in heavy traffic situations near roundabouts or red lights, or on highways when heavily laden vehicles drove slowly up hills. One important contributing factor is the lack of general motorist understanding of truck stopping limitations, and space requirements for turning at roundabouts. It may well be that some motorists fear large trucks because of their size and weight, and because car drivers cannot readily influence truck actions. That is, it is possible to hypothesise that large trucks are a threat to the ego of some motorists. While such a hypothesis is purely hypothetical, support is provided by Morgan's (1997) evidence on road rage by car drivers.

'Driving is inherently stressful and stress may be increasing due to longer and more frequent journeys and the increasing volume of traffic. For many in the 'at risk' group who are concerned with the presentation of their masculinity, driving becomes another arena of competition, struggle and apparent hierarchies of power. The road then becomes a particularly suitable 'screen' on which masculine power games are projected and played out' (Morgan 1997:2).

Hence road violence can be analysed within a framework of general aggression and status defence and enhancement. Thus while we believe that improved motorist education and understanding of truck capacities is clearly needed, this is not sufficient to prevent road violence directed at truck drivers. A better understanding of the causes of the violence being played out on the widely available battleground of the road, and interventions to diminish this, are likely to have greater long-term benefits. Some of the different facets of road violence are clarified through direct quotations made by interviewed truck drivers.

Abuse directed to truck drivers from motorists in heavy traffic is very common. For example: 'car drivers when they're going to work or just knocked off work; everywhere' (129, large fleet); 'car drivers giving you the finger or the thumb and you can read their lips as to what they are saying' (214, small fleet); 'from cars in city: Sydney, Melbourne, Adelaide and Perth; old pensioners with caravans' (240, owner/driver); and 'car and truck drivers; mainly in the cities. Usually heavy traffic conditions when everyone gets short-tempered' (297, owner/driver).

Abuse from motorists is often the result of their lack of understanding of truck limitations: 'cars - a really regular thing. They assume we can stop on a 10 cent piece. We might beep the horn as a warning sign and then they abuse us' (119, large fleet); 'lot of car drivers when taking off at light or cutting around sharp corners on the inside. They don't know the meaning of the warning signs on back of trailer "do not overtake turning vehicle" (123, owner/driver); and 'inconsiderate car motorists pass you, pull in front of you and then they hit the brakes in front of you. They probably don't realise what heavy vehicles can do to a car if run over one' (135, small fleet).

Verbal abuse can also be a form of vandalism directed at truck drivers. For example:

...people in cars and idiots on the UHF at night making threats - complete idiots. Saying truck drivers are the lowest form of life in the world' (26, small fleet); and 'other truck drivers on the radio. You just laugh at them. Probably full of drugs and don't know what they are doing' (272, large fleet).

The carrying of specific forms of freight can incite aggression amongst animal rights activists. For example: 'specialised problem. Sometimes we'll be going through towns and voung women will abuse us for being cruel as we've got live chickens on board. 100% voung women, never blokes' (261- owner/driver who carries live chickens).

Road rage from motorists can be a severe threat to truck drivers - and the car drivers themselves. For example: 'a car tried to push me off the road by slamming his brakes on. If I hadn't gone off the road I'd have taken the side out of his new Falcon. During the rain. Then he slammed on his brakes and I had to jump on my brakes, and I had two B/doubles up behind me. 1 Then he took off waving his fingers up – freeway outside of Sydney' (293, owner/driver).

Some motorists and pedestrians obtain 'kicks' from throwing objects or missiles at trucks. Again this is a form of vandalism that can potentially have fatal consequences. For example: 'car in the country. They threw an empty coke bottle at me as they passed and then pulled in front of me and slammed on their brakes. Scared the hell out of me as I thought it was another one of the suicides – there's a lot of that happening now' (158, owner/driver); and 'got hit with a rock about a fortnight ago. Hit just above passenger window. Just kids throwing rocks as you go past' (208, owner/driver). Of note, one interviewed truck driver had previously had a rock thrown at him from the same overhead bridge from whence a missile killed a truck driver in 1998.²

A B/double is an articulated truck with an additional semi-trailer coupled through a turntable on the back of the first semi-trailer.

The offenders in that case were subsequently sentenced in the New South Wales Supreme Court by Justice Michael Adams (R v S. Sutcliffe; R v S. McGoldrick; R. v L. McGoldrick).

Finally, the most severe forms of road violence identified by the 300 interviewed drivers were criminal threats and assaults: 'had a gun pulled on me a couple of months ago. They cut me off and when I abused them and told them what I thought of them, they pulled a gun on me at Bankstown' (20, owner/driver); and 'car motorists. Got shot at. The RTA was doing a bridge/weights test and had the road blocked off. A kid went through and started shooting at us - didn't hit' (100, owner/driver).

Occupational violence from staff at freight forwarding yards

We have previously argued that in male-dominated occupations, verbal abuse can become a normalised pattern of interaction (Mayhew & Quinlan 1999). Yet in this study only limited evidence of normalisation of repeated low level abuse was found: 'if it happens, you don't worry about it. Big enough to look after yourself' (110, small fleet). Further, the sites visited appeared to have a relatively low incidence of more severe forms of occupational violence. Only one variable stood out from the data: violence in freight forwarding yards and economic pressures were closely linked in nearly all incidents.

Economic pressures are widely recognised as intense in the long distance transport industry, and these pressures show no sign of abating in the short-term. As a result, bankruptcies are increasingly common amongst owner/drivers and small-scale loading yards, and mergers and takeovers are endemic amongst large fleet organisations. Undercutting on quotations is rife as competition constantly intensifies. In such an environment, competition and aggression between individual owner/drivers for contracts and loads is probably inevitable. In the freightforwarding yards, loading delays exacerbate these tensions and fuel aggression because waiting time is usually unpaid time. Hence it is not surprising that a number of interviewed drivers cited incidents when delays, cutting-in on queues, covert incentives provided by drivers to queue jump, and mistakes by forklift drivers; all of which fuelled tensions and sometimes resulted in lower-level occupational violence. None of the cited incidents threatened the life of a truck driver.

Some lower-level occupational violence arises through interpersonal difficulties. For example: 'different loading people; forklift drivers' (54, owner/driver); and 'from boss and occasionally from loading/unloading place' (84, small fleet).

Abuse frequently arises because of time pressures which compound financial stress. For example: 'boss- threatened with dismissal for being late' (98, small fleet); and 'verbally abused on the phone by the boss if you're going to be late. Everything is time-slotted' (289, large fleet).

Abuse also arises because economic pressures and heightened competition in the industry is resulting in many bankruptcies. For example: 'my boss, because truck is not cost-effective. Threatened with the sack' (204, large fleet).

Finally, abuse sometimes arises because of industrial relations issues and tensions. For example: 'I'm a union delegate. From management, mainly over day-to-day running and things they know they should do and it comes to an argument to get them done' (198, large fleet).

Occupational violence from customers

Economic and time pressures also affected the economic viability of some customers. As with owner/drivers themselves, the viability of many businesses is under threat from larger operators, declining markets and/or increasing costs. Many small-scale customers of the long distance truck drivers had been forced to adopt a Just-in-Time approach to the purchase of goods. Thus delays in arrival of goods were critical to business survival. Hence it is not surprising that altercations occasionally occurred. Once again, these cited altercations were not in any sense a threat to the life of the truck drivers involved.

Interpersonal difficulties and status differentials sometimes results in lower-level occupational violence. For example: '...you are an animal, not a person, to a lot of people' (31, owner/driver).

Abuse frequently arises because of time pressures for delivery, and unpredictable road conditions that can slow expected times of arrival. For example: 'customers abuse you if you are 10 minutes late. They haven't got a clue what we go through e.g. half them haven't driven in snow so you have to go 40km hour' (179 - small fleet driver interviewed when snowing).

Low-level occupational violence also arises through economic pressures on customers. For example: 'from customers. Usually little customers who are struggling for survival and have to take it out on someone' (192, owner/driver); and 'it was a daily basis when I worked on tow trucks' (94, small fleet).

Low-level violence such as abuse can also be caused by the impact of trucks on assets such as stock: 'now and again from a farmer because we're going on the limit and it's upsetting their cows...' (126, owner/driver).

Conclusion

In this paper it was argued that occupational violence amongst long distance truck drivers is an endemic risk. This violence has three distinct facets: road violence, violence at loading yards which is fuelled by economic and time pressures, and violence from economically stressed customers. These three facets are largely non-overlapping, the aggressors have a different profile, the forms of violence have a different incidence and severity, the causes are different, and preventive interventions vary.

Once the incidence patterns and risk scenarios have been identified, the search for appropriate and reliable methods to reduce occupational violence can begin. Site and violence type-specific strategies need to be tailored.

We believe that road violence perpetrators share a number of characteristics with other violent aggressors and offenders. For these aggressors, broader societal prevention measures must be considered. The preventive interventions will involve a range of service providers including the education system, family support services (it is in the family that aggressive ways of behaviour are usually learnt), and law enforcement as well as road licensing authorities.

Underlying economic and time pressures fuelled the occupational violence in freightforwarding yards and from customers. There are a number of ways that these underlying pressures can be relieved. First, waiting times for loading and unloading can be more efficiently organised so that unproductive unpaid working hours spent waiting in yards are reduced. Second, excessively tight time-schedules between pick-up and delivery points can be eased; this will require standardised safe expected trip times over specified distances and for particular cities. Third, the setting of standardised minimal freight rates per kilometre could contain the excessive competition in this industry. Fourth, improved regulation and enforcement of vehicle speed and working hours requirements - including all those in the chain of responsibility - could reduce tension levels in this industry. Developments in digital technology may assist in this process. Apart from the latter, all such solutions lie outside the traditional criminal justice system.

There is one other potential control over occupational violence that has yet to be widely aired in the long distance transport industry and in the courts. While prevention of occupational violence is seldom specifically mentioned in OHS legislation, the general Duty of Care in the Robens-based OHS legislative frameworks in all Australian states and territories requires the provision of a reasonably safe place and a safe process of conducting work (Johnstone 1997)³. There can be little doubt that failure to protect an employee from overt occupational violence is a failure to meet the general duty of care. In the long distance road transport industry, it is probably only a matter of time before freight-forwarding companies are hauled before the courts for instituting a system of work that systemically fuels lower-level occupational violence. Through vicarious liability provisions employers are also liable for the acts of one employee (such as a forklift driver) on another (for example, a truck driver being loaded). Further, some threatening acts by motorists on truck drivers probably constitute breaches of the criminal code as well as breaches of the road traffic acts, for example, the throwing of missiles.

In sum, occupational violence in long distance road transport is a significant problem in three distinctive areas of work in the industry. Road violence has the highest incidence and potentially the greatest severity. Yet the most effective preventive interventions lie outside the traditional criminal justice system and are resource intensive. Policy options could include the inclusion of road violence prevention in other aggression minimisation strategies and improved driver education. Economic and time pressures are core contributors to the violence experienced at freight-forwarding yards and at customer loading and delivery sites. While technological developments such as global positioning systems may help ensure the excessive hours that exacerbate tensions are not worked, the chain of responsibility will have to be considered during enforcement. However the most effective prevention initiatives require intervention from outside the criminal justice system via standardised minimal freight rates imposed across all sectors of the industry. Thus we believe that prevention of all three types of occupational violence experienced by truck drivers will require a broad policy and strategy approach.

Robens-based OHS legislation is founded on self-regulation rather than prescriptive standards, and was developed in the early 1970's in the United Kingdom following the Inquiry by Lord Robens. Each of the Australian States and Territories subsequently developed OHS legislative frameworks based on the Robens model.

REFERENCES

Bureau of Labor Statistics (BLS) (1997) National Census of Fatal Occupational Injuries, 1996, 7 August, US Department of Labor, Washington DC.

Bureau of Labor Statistics (BLS) (1996) National Census of Fatal Occupational Injuries, 1995, 8 August, US Department of Labor, Washington DC.

Chappell, D (1998) 'Violence in the transport workplace', paper presented to the International Transport Workers Federation Women's conference, New Delhi, 26 October 1998.

Chappell, D & Di Martino, V (1998) Violence at Work, International Labour Organisation, Geneva.

Dalziel, J & Job, R (1997) Taxi Drivers and Road Safety, report to the Federal Office of Road Safety, Department of Transport and Regional Development, Canberra.

Driscoll, T Mitchell, R. Mandryk, J Healey, S & Hendrie, L (1999) Work-Related Traumatic Fatalities in Australia, 1989 to 1992, National Occupational Health and Safety Commission, Ausinfo, Canberra.

Gates, D & Horseman, S (1995) 'Occupational health and safety professional's attitudes toward occupational violence', Applied Occupational and Environmental Hygiene, vol 10, no 2, pp 79-83.

International Labour Office (ILO) (1998) 'Violence on the job - a global problem', International Labour Organization Press Release (ILO/98/30), 20 July 1998.

Jenkins, E (1996) 'Workplace homicide, industries and occupations at high risk', Occupational Medicine, vol 11, no 2, pp 219-25.

Johnstone, R (1997) Occupational Health and Safety Law and Policy, Law Book Company. Sydney.

Mayhew, C (1999) 'Occupational Violence: a Case Study of the Taxi Industry', in Occupational Health and Safety in Australia: Industry, Public Sector and Small Business in Mayhew, C & Peterson, C (eds), Allen and Unwin, Sydney, pp 127-139.

Mayhew, C & Ouinlan, M (2000) Occupational health and safety amongst 300 truck drivers', unpublished research report from the Industrial Relations Research Centre, University of New South Wales, conducted as part of the Motor Accident Authority of New South Wales Safety Inquiry into the Long Haul Trucking Industry, Sydney.

Mayhew, C & Quinlan, M (1999) 'The relationship between precarious employment and patterns of occupational violence', in lsaksson, K, Hogstedt, C, Eriksson, C, & Theorell, T Health Effects of the New Labour Market, Kluwer, New York, pp 183-203.

Mayhew, C, Quinlan, M & Ferris, R (1997) 'The effects of subcontracting/outsourcing on occupational health and safety: survey evidence from four Australian industries', Safety Science, vol 25, no 1-3, pp 163-78.

Morgan, F (1997) Road Rage: Driving Related Violence in Western Australia, The Crime Research Centre, report for the Royal Automobile Club of Western Australia, The University of Western Australia.

Nelson, N and Kaufman, J (1996) 'Fatal and nonfatal injuries related to violence in Washington workplaces, 1992', American Journal of Industrial Medicine, vol 30, no 4, pp 438-46.

National Occupational Health and Safety Commission (NOHSC) (1999) 'Program one report: occupational violence', discussed at the 51st Meeting of the NOHSC, 10 March 1999, Hobart.

OSHA (1998) Guidelines for Preventing Violence in the Workplace, Department of Consumer and Business Services, Washington DC.

Quinlan, M and Mayhew, C (Nov. 1999) 'Precarious employment and workers' compensation', International Journal of Law and Psychiatry, vol 22, no 5-6, pp 491-520.

Staysafe (1997) 'Injury risk and injury control in the New South Wales taxi industry: workplace safety, road safety and public safety issues', in Staysafe 36: Drivers as Workers, Vehicles as Workplaces: Issues in Fleet Management, edited transcripts of a seminar held at Parliament House, Sydney, 29 April, 1996. Ninth report of the Joint Standing Committee of Road Safety of the 51st Parliament of New South Wales, Sydney, pp 197-207.

Warshaw, L & Messite, J (1996) 'Workplace violence: preventive and interventive strategies', Journal of Occupational and Environmental Medicine, vol 38, no 10, pp 993-1005.

Wolfgang, M and Ferracuti, F (1969), The Subculture of Violence: Towards an Integrated Theory in Criminology, Tavistock, London.