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Abstract | How best to respond to and manage intoxicated offenders is a concern shared by policing agencies across Australia. Intoxicated offenders present additional behavioural and health risks during their interactions with police. These risks may result in harm to the officers, the offender or the community. This research examined how intoxication influences the nature and magnitude of the risk associated with police officer/offender interactions.

Using data from the National Deaths in Custody Program, a qualitative sample of 41 cases were analysed. These cases involved offenders who died in police custody and who, according to autopsy results, had alcohol or drugs in their system at the time of death.

Results showed that, while intoxication influences an offender's behaviour and health, the overall level of risk during the interaction was determined by the interplay between these two elements and the police response. This interplay between intoxicated behaviours, health risks and police responses should be considered in the development of policies and practices to minimise harm.

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The nature of risk during interactions between the police and intoxicated offenders

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Police officers spend between eight and 25 percent of their time responding to alcohol and other drug- (AOD) related primary incidents (see Donnelly et al. 2007; Palk, Davey & Freeman 2007). Intoxication itself is not a criminal offence in Australia. AOD-related police call-outs are incidents in which AOD use was a causal factor or events where intoxicated persons are present, such as intoxication in a public place. Police who attend AOD-related incidents may be required to interact with, control and manage intoxicated people. Officers also have a responsibility to ensure the safety of intoxicated individuals and others present. So common is this issue that 41 percent of adult police detainees interviewed by the Drug Use Monitoring in Australia (DUMA) program in 2013–14 reported consuming alcohol in the 48 hours prior to arrest, with an average consumption of 19 standard drinks (Coghlan et al. 2015). In addition, 46 percent of police detainees tested positive via urinalysis for cannabis, 37 percent for amphetamines, 24 percent for benzodiazepines and eight percent for heroin. While this does not mean all police detainees who tested positive were intoxicated, it does indicate the police were required to manage intoxication- and withdrawal-related risks for a considerable proportion of police detainees.

All interactions between police officers and offenders involve an element of danger. However, intoxicated offenders pose additional threats to the safety of officers, bystanders and themselves. AOD intoxication can affect the health and behaviour of the offender and increase their risk of aggression or physical health complications. Officers must therefore understand how intoxication-related risks manifest and change during an interaction, to ensure the responses and strategies implemented are appropriate, effective and minimise the risk of harm.

This study explored this issue using data from the AIC's National Deaths in Custody Program (NDICP). A sample of deaths-in-custody cases were examined, along with any accompanying coronial recommendations, to identify the characteristics of incidents involving intoxicated individuals in police custody.

The study aimed to determine how intoxication influences the nature and magnitude of risk associated with police officer/offender interactions. This research formed part of a wider project that examined police best practice in responding to individuals affected by alcohol and other drugs (for the full report see Fuller, Goldsmid & Brown forthcoming). For consistency, those involved in interactions with police are referred to in this paper as offenders; however, they may not have been convicted of the alleged crime that precipitated the police interaction.

The effects of AOD use and intoxication

Intoxication can be defined as a condition that follows the administration of alcohol or a drug that 'results in disturbances in the level of consciousness, cognition, perception, judgement, affect or behaviour or other psychophysiological functions and responses' (World Health Organisation [WHO] 2014). This is a broad application of the WHO's (2014) definition of acute intoxication by psychoactive substances. Implicit in this definition is the idea that intoxication can lead to increased levels of risk for the individual and those around them. Specifically, risks may stem from disturbances to consciousness, perception and judgement; the individual might not be fully cognisant of their surroundings or in full mental or physical control of their actions.

Alcohol is a depressant that slows down and suppresses the functions of the central nervous system. Drugs like heroin, cannabis and benzodiazepines are also depressants, while cocaine, amphetamines and MDMA (ecstasy) are stimulants. Stimulants hasten messages from the brain to the body and result in the user feeling more alert, awake, confident or energetic (Australian Drug Foundation [ADF] 2014). Health complications can arise even at low levels of intoxication. How alcohol and other drugs affect users is contingent upon the class of drug, as well as factors such as the individual's health, gender, weight, age, polydrug use, food intake and dependence on the substance. The level of risk that intoxication poses to the individual, the police and the community therefore varies depending on the impact of the substance on the offender's health and behaviour, including whether any disturbances of consciousness, perception or judgement manifest as aggression.

Aggression

Heavy alcohol use is more closely associated with aggressive behaviour than the use of any other psychotropic drug (WHO 2009). An estimated 23 to 73 percent of assaults in Australia involve alcohol (Briscoe & Donnelly 2001; Doherty & Roche 2003; Poynton et al. 2005; Morgan & McAtamney 2009).

Yet, while it is acknowledged that the two are linked, the mechanisms by which alcohol influences aggressive behaviour remain unclear.

One explanation is that the use of alcohol affects key areas of the brain involved with executive functioning, decision-making and information processing (Beck & Heinz 2013). The chemical effect of alcohol on these areas of the brain may increase the likelihood of aggressive behaviour by impeding cognitive processes such as self-regulation, attention and the interpretation of environmental cues (Graham 1980; Graham et al. 1998). Social learning theory posits that differences in the way people expect alcohol to affect them are associated with alcohol-related aggression (Beck & Heinz 2013).

Compared with alcohol, the link between drugs and aggression is less well described. In many cases, violent behaviour is a symptom of the relationship between drug use and psychosis or paranoia. For example, although cannabis is typically a sedative, studies show regular users may become aggressive as a result of feeling threatened or frightened, or while in a confused or paranoid state (NCPIC 2011a). Individuals experiencing cannabis withdrawal can also develop symptoms of irritability, anxiety or nervousness, which may lead to aggression (Budney et al. 2003; Copeland, Frewen & Elkins 2009).

Methamphetamine use has also been found to produce feelings of irritability, physical aggression, hypervigilance and agitation in the user (Maxwell 2005). McKetin et al. (2014) examined the link between violent behaviour and methamphetamine use in a sample of 278 individuals who met the DSM-IV criteria for methamphetamine dependence but not the criteria for schizophrenia or mania. The study found a positive relationship between violent behaviour and frequency of methamphetamine use. Less frequent users (those who had used methamphetamine less than 16 days in the month prior) were four times more likely to engage in violent behaviour than when they were not using the drug. The difference was more pronounced among more frequent users, who were 15 times more likely to engage in violent behaviour. This relationship remained even after adjustments were made for other drug use and sociodemographic characteristics (McKetin et al. 2014).

Methamphetamine users are among those who most frequently engage in polydrug use, further increasing the risk of aggression (Department of Health 2008). Polydrug use is the sequential or simultaneous consumption of more than one drug or type of drug. For methamphetamine users, polydrug use often involves taking depressants such as cannabis and pharmaceutical medication (eg benzodiazepines) during the 'comedown' or 'crash' from methamphetamine (Darke et al. 2008; Sexton et al. 2009).

Depending on the combination of drugs consumed, polydrug users are at elevated risk of paranoia and psychosis. When in such a state, offenders are more likely to behave aggressively towards police (Medina & Shear 2007; Dawe et al. 2009; McKetin et al. 2014).

Aggression from the offender increases their risk during an interaction with police, because the police will be focussed on controlling the aggression and ensuring the safety of officers and bystanders. However, aggression is not the only by-product of intoxication that increases the offender's risk of harm; the use and mixing of alcohol and other drugs also have potentially serious consequences for the offender's physical and psychological health.

Health risks

The health risks associated with the use of AOD are widely known. At low doses, alcohol can lead to a loss of emotional restraint and mild impairment of judgement as well as feelings of relaxation, euphoria and vivaciousness. As the amount of alcohol in the body increases, it depresses the brain's arousal, motor and sensory centres (NSW Department of Health 2008). High doses can cause drowsiness, problems with coordination and balance, nausea and vomiting, difficulties processing information and memory retention, poor decision-making, slurred speech, unconsciousness and inhibition of breathing (NHMRC 2009). Alcohol use can also cause respiratory depression, coma and even death (NSW Department of Health 2008). The level of intoxication is an important factor in risk assessment, as the risk of physical health complications rises with the levels of alcohol and other drugs in the blood.

The health risks associated with long-term use or dependence on alcohol and other drugs should also be considered. For example, the long-term consumption of alcohol increases the risk of permanent damage to vital organs like the brain and liver. During a police officer/offender interaction—particularly if the interaction involves physical exertion such as attempting to flee, struggling or fighting back—compromised organs may be at greater risk of failure.

The risk to the offender's health is influenced not only by their level of intoxication, but also by the substance they have consumed. Those who take large doses of cannabis are at increased risk of respiratory problems such as chronic cough, sputum production, wheezing and bronchitis.

Benzodiazepines are also associated with respiratory risk; overdose can lead to slow, shallow breathing and an increased risk of coma (ADF 2013b). Prolonged heroin use can cause depression, damage to internal organs such as the heart and lungs and vein damage from injection (ADF 2013a). As an example of the health risks of polydrug use, McCabe, Cranford, Morales and Young (2006) reported that alcohol in combination with other depressants, such as benzodiazepines, can increase the risk of permanent brain and liver damage, respiratory depression and death.

Another consideration during police officer/offender interactions is the risk associated with withdrawal. Offenders may be undergoing withdrawal during their initial contact with the police, or may experience withdrawal while in custody. Withdrawal is a result of the 'cessation of, or reduction in, heavy and prolonged substance use' (American Psychiatric Association 2013: 486) and can affect individuals with a psychological or physical dependence on alcohol and other drugs (ADF 2014). Health risks associated with withdrawal from heroin include elevated blood pressure, tachycardia (rapid heart rate) and dehydration (Lintzeris et al. 2006). The risks of alcohol withdrawal include elevated heart and blood pressure, seizures, organ failure and death. The ADF advises medical supervision for people undergoing withdrawal (ADF 2014).

This brief summary highlights how intoxication can increase the risks associated with police officer/offender interactions—that is, how an offender's level of intoxication influences their behaviour (eg level of aggression and ability to follow police directions) and health and how, in turn, this influences the degree of risk attached to the police officer/offender interaction. However, what is not clear is how these risks manifest during such interactions. The aim of this research is to understand how intoxication-related elements operationalise and interact with each other to influence the overall level of risk.

Method

The NDICP was established in response to recommendations made by the Royal Commission into Aboriginal Deaths in Custody. The NDICP database contains information on all deaths in custody in Australian states and territories since 1980. The database contains personal information about the deceased, as well as contextual information about the death including the time, location, cause of death and other factors, such as the involvement of alcohol and other drugs.

This research examined cases involving offenders who died in police custody and had AOD in their systems at time of death, according to autopsy results. The analysis aimed to:

- identify the intoxication-related risks that arise during interactions between the police and intoxicated offenders; and
- examine how an offender's behaviour and level of intoxication interacts with the police response to determine the overall level of risk attached to these interactions.

Data extraction

Data were extracted from publicly available coroners' reports, according to a standardised form developed for this research. Extracted data included:

- demographic information;
- intoxication ratings;
- victim demeanour, characteristics, behaviour and appearance;
- police actions that either directly or indirectly contributed to the death; and
- the coroner's recommendations.

Extracted data were coded against six stages of interaction between the police and the offender. The six stages ranged from initial contact through to release or discharge, or transfer to corrective services (Table 1). Coding against stages of interaction allowed incident characteristics to be identified and compared across cases; in particular, data relating to how intoxication was expressed, identified and managed by the police was recorded and compared across cases at each stage.

Table 1: Stages of interaction with police

Stage	Description of interaction
Stage 1	Initial contact
	Interaction in the field
Stage 2	Arrest
	Transportation to place of detention, hospital or shelter
Stage 3	Handover to custody manager
	Booking/assessment
	Transfer to cell
Stage 4	Occupying cell
Stage 5	During investigation/interview
Stage 6	Transfer to corrective services
	Release/discharge

Selection and inclusion of cases

The NDICP database holds information on 1,288 cases. However, this includes cases not relevant to this research because the offender died while in prison or serving a custodial sentence. The criteria for including a case in this review were that:

- death occurred between 2002–03 and 2010–11;
- the offender died in police custody, as defined by NDICP protocols;
- the offender had alcohol or illicit drugs in their system at the time of death, based on the autopsy report;
- the death did not occur as part of a motor vehicle pursuit; and
- the coroner's report was publicly available.

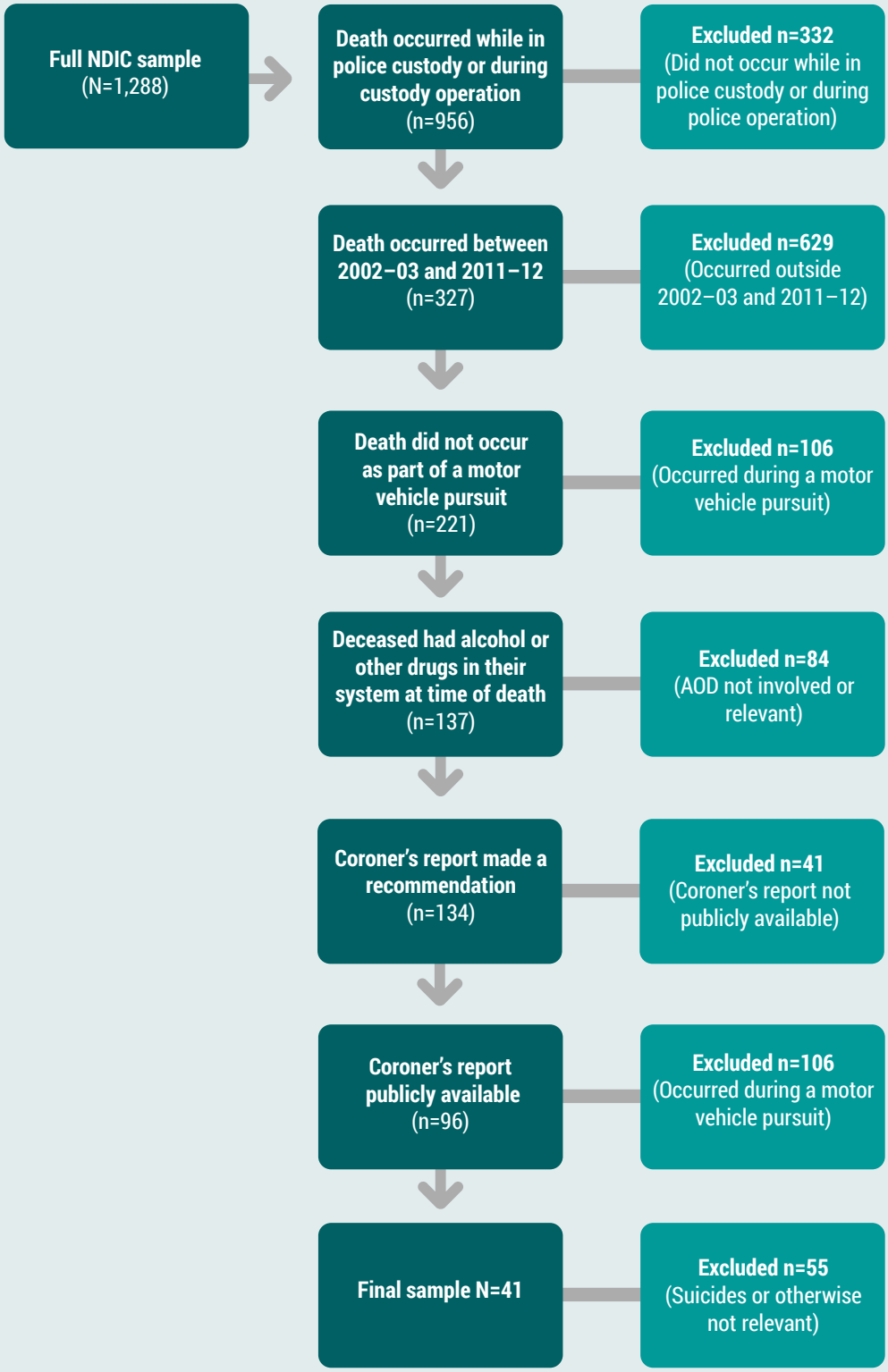
A death in police custody refers to any incident where the offender died:

- while detained in, or during transport to or from, a police vehicle or station or an institutional location such as a lockup; or
- during a police operation such as an arrest, investigation or siege.

For more information on NDICP protocols see Lyneham and Chan (2013).

Figure 1 presents a flow diagram illustrating how cases were selected. As previously noted, the NDICP database holds information on 1,288 cases. After excluding cases that did not constitute a death in police custody, 956 cases remained. Of those cases, 327 occurred between 2002–03 and 2010–11. Excluding cases involving a vehicle pursuit refined the sample to 221 cases. A further 84 cases were removed as the toxicology report showed no alcohol or illicit drugs were present in the offender's system at the time of death. In 134 cases the coroner made a recommendation, though 38 of these were confidential and not publicly available. After a review of the publicly available coroner's reports for the remaining 96 cases, 54 cases were excluded as beyond the scope of this project. This included cases where the offender committed suicide or where police custody was incorrectly defined. This left a final sample of 41 cases for analysis.

Figure 1: Process of case selection and inclusion



Analysis

The sample cases were analysed using NVivo 10, a software tool designed to facilitate qualitative analysis (hereafter referred to as NVivo). Content was coded in a way that allowed researchers to explore the patterns and themes associated with incidents involving police and intoxicated offenders, and allowed the dynamic nature of risk in these situations to be conceptualised.

An AIC research analyst with extensive experience in qualitative analysis subjectively assessed risk, which was defined as the likelihood of death or serious injury to the police, the community or the offender, based on the narrative description provided in the coroner's report. Although the reliability of the ratings may have been improved by the use of a second coder, this was not possible due to time constraints.

Limitations

This approach has a number of limitations that need to be considered when interpreting the findings.

The final sample of 41 cases could be considered small. This potentially limits the generalisability of the findings to other deaths in custody involving an AOD-intoxicated offender. However, as this study involves qualitative analysis, the sample size needed to reach saturation point—the point at which no new ideas are generated—is often small. For this reason the final sample of 41 cases was considered sufficient.

In addition, the sample is not representative of all interactions between the police and intoxicated offenders, only of those that led to death. The sample may also be subject to selection bias as only cases where the coroner's recommendations were publicly available were included. This decision was largely an administrative one. Applying for access to confidential coroner's reports would have been a time-consuming process, and the dissemination of results from such analysis would have been restricted, thus limiting the usefulness of the findings. It is not known whether deaths in custody cases where coroners' reports are publicly available are representative of those which are confidential.

Cases of 'near misses'—where AOD-intoxicated offenders were at risk but did not die in custody—are not captured in the NDICP, further limiting the representativeness of the sample. This also means that police procedures aimed at preventing deaths in custody may not be apparent in this analysis; the data included for analysis may, therefore, reflect what could be considered worst-case scenarios. In the absence of other available data, however, these cases provide valuable insight into how the risks of intoxication manifest during interactions between the police and offenders.

Finally, police practices have changed during the 10-year sample period. Advances in best practice and new technologies have shaped the way police officers respond to intoxicated offenders in the field and the watch house. Similarly, coronial investigations and the subsequent implementation of recommendations will have influenced and improved standard operating procedures. However, the nature of such changes and their extent falls outside of the scope of this research.

Results

Characteristics of intoxicated offenders

Based on the types of risk and the behaviours offenders displayed towards police, the full sample of 41 cases was divided into three groups:

- Group 1 comprised cases where the offender's aggression was the overriding risk and focus of those involved (n=13; 32%);
- Group 2 comprised cases where the offender's health was the primary concern, with a notable absence of aggression (n=10; 24%); and
- Group 3 comprised cases where the primary focus was initially on the offender's aggression but later shifted to the offender's health (n=18; 44%).

Group 1: Aggression only

The aggressive behaviour displayed by offenders in this group was the defining feature of their interactions with the police. Twelve of the 13 cases involved offenders who targeted police with aggressive behaviour. In the remaining case (Case 21), the target of the aggression was the offender's girlfriend. Table 2 presents the characteristics of this group.

Table 2: Characteristics of offenders in Group 1

Case	Gender	Age	Alcohol	Drugs	Mixed	Aggression	Stage of death	Cause
1	M	30–39		✔		✔	2	Death related to police restraint
2	M	>50 years		✔		✔	2	Gunshot (police)
3	M	20–29		✔		✔	1	Gunshot (police)
7	M	<20 years	✔			✔	2	Gunshot (police)
9	M	30–39		✔		✔	1	Gunshot (police)
15	M	20–29		✔		✔	2	Death related to police restraint
16	M	40–49			✔	✔	1	Gunshot (police)
19	M	20–29			✔	✔	1	Gunshot (police)
21	M	30–39	✔			✘	2	Other physical
22	M	30–39		✔		✔	1	Gunshot (police)
24	M	20–29		✔		✔	1	Gunshot (police)
26	M	20–29	✔			✔	1	Not determined
34	M	20–29		✔		✔	2	Gunshot (police)

More offenders in this group were intoxicated by drugs than by alcohol. It was not possible to draw a causal link between drug use and the aggressive behaviour; however, autopsy results indicated 10 of the 13 offenders were under the influence of some form of drug at the time of their death. Where specific toxicology was reported, amphetamines and cannabis were the most common drugs detected (n=6, respectively).

Offenders in this group exhibited either direct or indirect aggression during their initial contact and interaction with the police. Indirect aggression was present in cases where the offender did not specifically target the police or an individual, but their behaviour had the potential to cause harm. For example, Case 34 involved an offender who came to the attention of the police due to his dangerous and erratic driving. In Case 1, police officers were detaining the offender under the Mental Health Act; while the offender was not initially overtly aggressive towards police, his behaviour did cause concern.

> Once outside of the unit [the deceased] exhibited a number of behaviours that disconcerted police. When repeatedly asked for his house keys, [the deceased] would place his hand in his pocket and pull them out halfway and then remove his hand. There were other instances where he manipulated the rings on his fingers as if to place them in positions that might facilitate the infliction of injury. (excerpt from the coroner's report for Case 1 in Table 2).

In contrast, five offenders in Group 1 posed a direct and immediate threat to the safety of police officers or bystanders. In these cases, there was an overt intention to cause harm and the offender was armed; three cases involved an offender armed with a knife and two an offender armed with a firearm. In the following case the offender ignored the police officer's attempt to control the situation:

> …[the deceased], who was seen to be bleeding from the neck and to have blood on his hands, was directed to drop the knife, however, this direction was ignored as he commenced to run at [police officer]. (excerpt from the coroner's report for Case 9 in Table 2)

Other examples included offenders who attempted to shoot (Cases 2 & 24) or stab the police (Case 7). In light of this threat, the police response was focused on controlling the threat posed by the offender's aggressive behaviour.

No offender in this subgroup survived beyond arrest, as shown in Table 2. Seven of 13 offenders died during initial contact or interaction (Stage 1), while the remaining six died during arrest (Stage 2). The majority (n=9) were shot by police. The actions of police were supported by coroners' findings and recommendations. Where coroners did make recommendations, they highlighted the difficulties associated with managing aggressive offenders. As one coroner stated:

> …[i]t is important to reflect on the very difficult and challenging situation the officers suddenly found themselves in. Something that they anticipated to be quite routine quickly turned into something very different (excerpt from the coroner's report for Case 15 in Table 2).

Group 2: Health risk only

Offenders in Group 2 rarely demonstrated any aggressive behaviour towards the police or bystanders. Five incidents were initiated after police received a call regarding the offender's intoxication. Unlike

the cases in Group 1, the presence of alcohol was more common than that of drugs. Table 3 presents the characteristics of the offenders in this group.

Table 3: Characteristics of offenders in Group 2

Case	Gender	Age	Alcohol	Drugs	Mixed	Aggression	Stage of death	Cause
6	M	30–39			✔	✘	2	Other physical
11	M	40–49	✔			✘	4	Other physical
27	M	>50 years	✔			✔	4	Other physical
28	M	20–29	✔			✘	1	Other (non-physical)
30[1]	M	20–29	na	na	na	✘	4	Other (non-physical)
35	M	20–29			✔	✘	4	Other (non-physical)
36	M	40–49	✔			✘	2	Death related to police restraint
37	M	40–49	✔			✘	2	Other physical
39	F	>50 years			✔	✘	3	Other (non-physical)
40	M	20–29	✔			✘	2	Other (non-physical)

1. Toxicology results from the autopsy were not available. In these cases, the police judged the offender to be under the influence of alcohol at the time of arrest.

All offenders in Group 1 died prior to or during arrest. In Group 2, 40 percent (n=4) of offenders died during Stage 2 (arrest) while another 40 percent (n=4) died during Stage 4 (occupying cells). Both stages represent points where the interaction between the offender's compromised physical functioning and activity increased the level of risk—that is, a state of exertion (not necessarily aggression) during Stage 2 (arrest) and a state of relaxation during Stage 4 (occupying cells). This group's risk of health complications due to intoxication was increased as a result of the actions taken by police (ie physical restraint and exertion during arrest or a period of detention in cell). Ultimately, compromised physical functioning due to intoxication and the actions of police combined to lead to the offender's death. Examples of the causes of death found by coroners included cardiac arrest and respiratory failure.

In all cases, police were aware the offender was intoxicated during the initial interaction. This understanding was based on a variety of factors, including the presence of situational cues (eg empty bottles of alcohol) and behavioural cues such as slurred speech, and the smell of alcohol. This awareness was further reflected in the actions taken by the police, which included taking the person to a sobering-up shelter (Cases 27 & 11) or to the hospital (Case 35).

For Group 2, risk was primarily related to the health risks associated with the offender's level of intoxication. For example, in at least two cases where the offender died during arrest, police officers had little warning prior to the offender experiencing respiratory difficulty (Cases 36 & 37). For example:

> …he was talking but [police officer] could not hear what he was saying. [Police officer] became concerned about his medical condition and leant over to ensure that [the deceased] was breathing. He satisfied himself that [the deceased] was breathing and then requested that he sit up. However, [the deceased] did not respond and [police officer] bent down and shook [the deceased] but again there was no response. [The deceased] could be heard breathing or wheezing at this time. (excerpt from the coroner's report for Case 37 in Table 3)

This case highlights how quickly physical complications can arise. In such situations the risk escalates so rapidly the police are unable to provide treatments for or put in place strategies to manage intoxication—especially when the offender experiences difficulties during the initial stages of interaction.

Offenders died in a cell in the watch house in four cases in Group 2. The officially recorded cause of death in two of these cases was complications arising from injury and, in the other two, cardiac arrest. Both offenders who died from cardiac arrest had blood alcohol concentration levels of 0.3 percent or higher, placing them in the severely intoxicated range. Regardless of how they died, the patterns of interaction between the police and the offenders were comparable in all four cases. Upon presentation at the watch house, offenders were assessed as fit for custody. After a period of time, police officers became concerned and conducted a physical check, at which point it was discovered the offender was no longer breathing or was in some other form of difficulty.

The cases where death occurred during Stage 4 (occupying a cell) show how police actions (ie detention in a cell) combine with intoxication-based health risks such as respiratory depression to influence the overall level of risk to the offender. Two police practices appear to have directly contributed to an elevated level of risk in the cases examined. The first is the failure of police to accurately assess the offender's level of intoxication or injury prior to placing them in a cell, and the second inadequate monitoring of the offender in the cell. In these cases the coroner's recommendation focused on improving these two elements—for example, by recommending the installation of adequate CCTV in the watch house (Case 30).

Group 3: Mixed risk

Two of the offenders in Group 3 died in Stage 1 (initial interaction), ten in Stage 2 (arrest), one in Stage 3 (handover to custody manager) and five during Stage 4 (occupying a cell). Thus, like Group 2, most offenders in this group died during Stage 2 (arrest) or Stage 4 (occupying a cell). Table 4 presents the characteristics of the offenders in this group.

Table 4: Characteristics of offenders in Group 3

Case	Gender	Age	Alcohol	Drugs	Mixed	Aggression	Stage of death	Cause
4	M	20–29			✔	✘	2	Other (non-physical)
5	M	20–29	✔			✔	4	Death related to police restraint
8	M	30–39		✔		✔	2	Other (non-physical)
10	M	40–49		✔		✘	2	Other physical
12	M	20–29		✔		✘	2	Not determined
13[1]	M	30–39	na	na	na	✘	2	Other physical
14	M	20–29			✔	✔	1	Gunshot (police)
17	M	30–39		✔		✔	2	Other physical
18	M	20–29	✔			✘	2	Other (non-physical)
20	M	40–49		✔		✔	2	Death related to police restraint
23	M	20–29	✔			✘	2	Other (non-physical)
25	M	40–49		✔		✔	2	Gunshot (police)
29	M	40–49		✔		✔	3	Other physical
31	M	40–49			✔	✘	4	Other physical
32	M	> 50 years	✔			✘	4	Other physical
33[1]	M	> 50 years	na	na	na	✔	4	Other physical
38[1]	M	30–39	na	na	na	✘	4	Other (non-physical)
41	M	30–39		✔		✘	1	Death related to police restraint

1. Toxicology results from the autopsy were not available. In these cases, the police judged the offender to be under the influence of alcohol at the time of arrest.

In all cases in this group, the pattern of risk followed the same progression. Offenders initially presented as a risk to police/bystanders due to violent or aggressive behaviours. However, once police had controlled the situation and the aggressive behaviour, the offender's health became their

primary concern. In no case did an offender pose an aggression-related risk once the initial hostile behaviour had been controlled.

There are clear differences in the type of intoxication experienced by those who died during Stage 2 compared with those who died in Stage 4. Though the numbers in each of these groups are small, more offenders who died during Stage 2 were intoxicated only by drugs than by alcohol. Of those who died during Stage 4, the opposite was true. This may indicate a difference in the risk profiles of individuals intoxicated by either drugs or alcohol.

The pattern of police interaction of offenders who died during Stage 2 was similar. These offenders were aggressive toward police and died as a result of complications caused by the interaction between intoxication-based health risks and physical exertion (ie struggling, fighting back or attempting to flee). As the following two cases demonstrate, the intensity of the struggle between the police and the offender is likely to have been a contributing factor.

> There was a protracted struggle to control [the deceased], who police described as having super human strength. During at least the first 3 minutes of [the deceased]'s being restrained on the ground, as evident from the tasercam footage, terrible groans and screams are heard from [the deceased], which clearly show his pain and distress. At about 6:11:40am…he is suddenly seen to be unresponsive and not breathing and is found to be life extinct when ambulance officers arrive as summonsed. (excerpt from the coroner's report for Case 12 in Table 4)

> [The witness] went down the steps as [police officer] passed him going up. He said that when he last saw the two men [police officer] had appeared to catch [the deceased] and the two were in a scuffle with the former "laying across or something" the latter. Moments later [the witness] heard someone yell out "I can't breathe". He continued on his way out of the car park and while doing so heard a person he presumes was [police officer] yelling for someone to assist him and saying, presumably to [the deceased], "stop struggling, I'll let you breathe". (excerpt from the coroner's report for Case 20 in Table 4)

In such cases, the priority for police was controlling the aggressive behaviour rather than any potential health complications caused by intoxication. While perhaps appropriate, as suggested by an absence of coroner's recommendations to the contrary, this undoubtedly placed the offenders at increased risk of intoxication-related health complications.

Three offenders in this group died during Stage 4 (occupying a cell). In each of these cases, the police were aware that the offender was or could be intoxicated, as indicated by statements where the officer noted either: the presence of AOD paraphernalia during arrest (Case 5); the offender's sleepy and drowsy behaviour (Case 31); or a breathalyser reading (Case 32). In all cases, the offender died after appearing to go to sleep. In these cases, coroners' recommendations focused on improving police monitoring procedures—especially when officers were aware the offender may be intoxicated.

Discussion and conclusion

While the offenders' intoxication was not the primary reason for their involvement with the police, intoxication is an important determinant of the level of risk inherent in the interaction. In line with previous research, these findings demonstrate that risk levels are related to intoxication via

the effect of alcohol and other drugs on offenders' behaviour and health. This research expands the understanding of this relationship by highlighting the need to also consider how police officer responses to both the crime and the offender's intoxication influence the overall level of risk. That is, neither the unique contribution of the offender's behaviour nor their health determines risk, but rather the interplay between these two elements and the responses of police officers.

In certain situations, some elements may exert more influence than others. In the Group 1 cases, the key drivers of risk were the offender's behaviour and the police response; it was the interplay between the aggressive behaviour displayed and officers' attempts to control it that influenced the nature of the risk associated with these interactions. Specifically, the level of aggression displayed by the offenders was serious and immediate, and required a level of force from police that ultimately resulted in the death of the offenders.

Alternatively, for cases in Group 2, risk was driven by the relationship between the offenders' health and the police response. For instance, in the four cases where offenders died during arrest, the risk to the offenders was the result of both the speed at which their health declined and the inability of the police to respond in time.

Finally, all three elements influenced the level of risk attached to interactions in Group 3. In these cases, the offenders' behaviour and health influenced police responses during the interactions. Officers initially attempted to control the aggressive behaviour before switching to a focus on managing the subsequent health difficulties. In some cases, the health complications were also related to physical exertion (ie attempting to flee, struggling or fighting) during the interaction, further highlighting how these three elements interact and the impact they have on risk.

Any interaction between police officers and offenders carries an element of risk. With the additional element of intoxication, the risk increases. Developing policies and practices based on a framework that accounts for the interplay of the three elements (ie intoxication-related behavioural effects, intoxication-related health effects and the police response) may be an important first step toward best practice.

This study is part of a broader project in which a best-practice framework was developed to assist police in managing intoxicated offenders (Fuller, Goldsmid & Brown forthcoming). Balancing responding to crime and upholding the safety and welfare of the community is a serious and complex issue for police officers and one not easily solved. Police officers are not healthcare professionals and, in many cases, do not have the training necessary to appropriately manage intoxication-related health risks or withdrawal in the field or watch house. Police officers readily acknowledge this and, through policy, practice and procedure, have demonstrated they prefer health risks to be assessed and managed by healthcare professionals (Fuller, Goldsmid & Brown forthcoming). However, police will continue to be placed in situations where they are ultimately responsible for managing the health and welfare of intoxicated offenders. As such, there is an ongoing need to assess and evaluate how police approach the management of intoxicated offenders. This should be underpinned by an understanding of how risk to the police, the offender and the community arises from the interplay between the police response and the behavioural and health effects of intoxication on the offender.

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