Domestic Violence Incident Peaks: Seasonal Factors, Calendar Events and Sporting Matches

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Several research studies have linked seasonal changes, calendar events and football events to a rise in numbers of reported domestic violence incidents (e.g. Rotton and Frey 1985, p. 134; Sachs and Chu 2000; Sivarajasingam et al. 2004). Anecdotal evidence from some Australian services has also suggested that the number of domestic violence incidents increase around certain times, especially during the Christmas and New Year holiday period (ABC Online 2005).

This issue is relevant to service providers and policy makers. Any increase in domestic violence incidents is dangerous, with serious consequences for victims. Fluctuations also have implications for services and agencies (such as police), placing pressure on their limited resources. A better understanding of the relationships between domestic violence frequency and times of the year or events can inform where to best target resources, in order to deliver services and police responses, as well as education campaigns and other prevention measures to minimise violent incidents. Additional police resources, for example, can be directed to meet increased levels of need at times when the numbers of violence incidents are likely to be higher.

This paper reports on a study conducted by the Australian Domestic & Family Violence Clearinghouse about the possible relationships between reported domestic violence incidents and seasonal changes, calendar and football events. The study reviewed relevant international research to investigate claims around correlations between these variables. An analysis was then made of three years of domestic violence statistics from Australian states and territories, for which data were available.

It is important to clarify at the outset that the study did not assume a causal relationship between these variables. The vast majority of literature concerning domestic violence and violence against women, and the laws of all Australian states and territories, situate responsibility for domestic violence with the perpetrator.¹ That is, that the perpetrator is considered responsible for the violence, rather than the victim or other factors (such as alcohol consumption, unemployment or anger). It is understood that some men² make a conscious choice to be violent and that they alone are responsible for their actions.

Therefore, this study considered that the variables investigated might form a context in which domestic violence incidents are more likely but they are not considered to be direct causes of violent behaviour. It was hypothesised in this study that at different times of year or during public holidays or sporting events, certain factors may coalesce to provide opportunities for violent behaviour by perpetrators.

1 This reflects the perspective held by the Australian Domestic & Family Violence Clearinghouse.
2 This paper makes use of gendered language to acknowledge that the majority of perpetrators of domestic violence are men and the majority of victims are women (see for example, ABS 2006b). That does not preclude the fact that some women are violent towards their male partners or that some people engage in same sex domestic violence.
Alternatively, some perpetrators might give themselves permission to be violent at these times or during these events. The study focussed on whether relationships existed between the study variables and whether they were significant. The literature was drawn on to explore possible explanations for significant relationships.

EVIDENCE OF FLUCTUATIONS OVER TIME

This study involved a review of research papers, news articles and Australian data. The research areas reviewed spanned links between domestic violence frequency and temperature and climate conditions, seasons, calendar events and dates of football matches. None of the studies identified in the review examined all these themes. The following pages detail research available on these subjects.

Domestic violence and seasonal rhythms

A number of research studies have referred to a seasonal rhythm for criminal behaviour including domestic violence, with an increase in such behaviour during warmer months. All but one of the studies reviewed for this paper found that reports of domestic violence incidents, violence related injury to accident and emergency departments in hospitals and domestic homicides increased during summer months. This was the case for studies in both the northern and southern hemispheres. An earlier review of this research (Anderson 1989, p. 93) concluded that ‘hot temperatures produce increases in aggressive motives and tendencies … Hotter years, quarters of years, seasons, months and days all yield relatively more aggressive behaviours, such as murders, rapes, assaults, riots and wife beatings, among others.’

Studies have linked higher temperatures with increases in reports of domestic violence to police. Rotton and Frey (1985) examined two years of logged calls to police in Ohio, United States of America (USA) and found family disturbances and assaults more likely to occur with high temperatures and low winds. The authors concluded that these conditions were causally linked to violent episodes. The study also found a significant positive relationship between hours of daylight and assault. Other studies have found only higher temperatures, rather than hours of daylight, to be positively correlated with assault (e.g. Michael and Zumpe 1986).

Other studies have linked increases in domestic violence to summer months. Michael and Zumpe (1986) examined monthly totals of crisis and non crisis calls to 23 women’s shelters in five locations in the USA, over a two year calendar period. The study found abuse of women by male partners reached a maximum in summer, as well as correlating with local maximum temperatures. The authors suggested that violence by men was an expression of temperature related seasonal change, potentially affecting human irritability or a neuroendocrine mechanism involving neural pathways. Anderson has posed a similar hypothesis noting, ‘that people get cranky when uncomfortable – has proven surprisingly robust to all challenges’ (2001, p. 34).

In assuming a causal relationship between temperature and violence, Michael and Zumpe did not consider factors associated with warmer weather that might increase opportunities for violent behaviour, including holiday periods or increased consumption of alcohol. Further, they did not comment on whether women who also experience temperature related seasonal change similarly demonstrate an increase in violent behaviour. Despite the contentious nature of the study’s conclusions, the results did establish a link between increased numbers of domestic violence reports and summer periods.

Sachs and Chu (2000) examined police call outs for domestic violence over a three year period (1993-95) in Los Angeles County, USA. They found seasonal differences for domestic violence call outs, with summer months demonstrating a greater number of call outs, with July (during the US summer) peaking at 27 per day. January had the lowest average of 21 call outs per day. A study by Vazquez, Stohr and Purkiss (2005) examined domestic violence data for Idaho, using the US National Incident Based Reporting System for 1995-2001. This study similarly found that monthly incidence of reported domestic violence was greatest for summer months, with July recording the most incidents. The study postulated that family members spending more time together was a contributing factor (p. 07).

Violence related injury has also been shown to have a seasonal fluctuation. Using hospital data, Sivarajasingam, Shepherd, Matthews and Jones (2002) examined trends in violence related injury admissions to 58 major Accident and Emergency (A&E) Departments in England and Wales, over a five year period. From May 1995 to April 2000, there were more violence-related A&E attendances during spring and summer than during autumn and winter months.
Domestic violence and calendar events

While most of the studies cited indicated an increase in the number of reported domestic violence during summer months, certain calendar events also appear associated with violence. In studies examined for this paper, New Year’s Day is consistently linked with increases in domestic violence, regardless of location. In a number of studies the Christmas period also shows an increase in domestic violence, although this is not consistent across all locations. Other calendar events show some increases in some locations but not all. This suggests that correlations between the frequency of domestic violence and particular calendar events may be specific to geographical locations and how those events are observed and celebrated.

In 1997 a representative from the US National Crime Victims Research and Treatment Centre confirmed an increase of domestic violence incidents during Christmas holidays (during the northern hemisphere winter), proposing that increased alcohol consumption, tension and conflict contribute to this rise (Karig 1997). Two news articles from the United Kingdom (UK) reported increases in domestic violence over the Christmas period, referring to alcohol as a contributing factor (ThisIsOxfordshire.co.uk 2005; ThisIsWiltshire.co.uk 2001).

The New Zealand Herald (2005) has reported that Christmas (during the southern hemisphere summer) is the busiest time of the year for agencies dealing with domestic violence. The article noted that this time of year is associated with alcohol consumption, financial pressures, access to children, visiting relatives and the end of relationships, providing a context in which domestic violence is more likely to take place. In a 2006 media release, Victorian police identified greater family contact, alcohol consumption and financial pressures as possible triggers for increased family violence incidents during this period (Victoria Police 2006).

In their analysis of homicide in NSW, Nguyen da Huong and Salmelainen (1992) found that over the period 1968–1986, a peak in family homicide was evident at the end of each month, as well as at Easter and Christmas.

In NSW, research by the Bureau of Crime Statistics and Research (BOCSAR) has found increased reports of domestic assault around Christmas and New Year. The average daily number of criminal incidents recorded by NSW police was determined for the discrete period from 18 December to 14 January, for the years 2002-03 to 2005-06 (BOCSAR 2006). Analysis showed that while most personal offences remained stable around Christmas Day, domestic violence related assault was slightly more prevalent on both Christmas Day and Boxing Day. Non domestic violence related assault showed a peak in the week before Christmas (18-24 December). This was possibly related to social activities and alcohol consumption during that time. BOCSAR analysis also showed peaks in non domestic violence related assaults, domestic violence related assaults and sex offences on 1 January, New Year’s Day. The analysis found twice as many incidents of domestic violence related assaults recorded on New Year’s Day, compared with other days during the period.

International studies have identified elevated numbers of domestic violence and community violence around particular calendar events. Vazquez, Stohr and Purkiss’ (2005) study of reported domestic violence in Idaho, USA, found a strong relationship between particular holidays and reports of domestic violence incidents. On average, Valentine’s Day, Thanksgiving and Christmas (unlike other studies)
showed a slightly lower number of reports than other days. The study suggested that familial and relational sentiments may serve to mitigate abuse. In contrast, New Year’s Eve, New Year’s Day, Independence Day, Memorial Day and Super Bowl Sunday (the day of the championship game of the National Football League) showed a higher number of incidents than the daily average. New Year’s Day, in particular, had 2.7 times more reported incidents of domestic violence (p.109). These days, the study concluded, are ones in which it is more likely that people consume alcohol, ‘thus heightening abuse inclinations’ (p.110).

Sivarajasingam et al. (2004) examined possible risk factors for community violence in Wales, including calendar events. Their study looked at cases of injury from assault reported to the A&E Centre in Cardiff between 1 May 1995 and 30 April 2000. They found violence related injuries clustered around August Bank Holiday Monday, late December, New Year’s Day and days of international rugby matches (although not local rugby matches played at home). Injury attendance numbers did not fluctuate during other holiday periods (school and bank holidays).

The literature suggests that Christmas (although not in all studies), New Year’s Day and other major calendar events may be associated with increases in the number of domestic violence incidents and reports to police. Correlations between calendar events and incidents and reports of domestic violence may vary according to local conditions, although domestic violence reports appear to be consistently higher on New Year’s Day.

**Domestic violence and football matches**

A few studies have linked major football matches (of various codes) with increases in domestic violence. While the analysis of violence perpetrated by football fans of competing teams has rarely examined whether that violence has extended to the home, some authors have theorised about links between football and domestic violence (e.g. Burchill 1997; Burton Nelson 1994; Crossett 2000; Horrocks 1995; Radford and Hudson 2005) and argue that:

- Football violence and domestic violence are shaped by particular constructions of masculinity and aggressive sexuality.
- The permissions or acceptance (by sports clubs, commentators and spectators) granted to footballers for violent behaviour on the sports field, create a culture of masculinity that legitimises violence. Violence may then be taken into the home and other spheres involving women and children.
- The creation of male identity and belonging to a particular team (through uniforms, teams, symbols, songs, etc.) establishes an ‘other’, opposition or enemy (including women in the home), who then become legitimate targets for violence.
- Prominent footballers who assault women, including female partners, are rarely sanctioned (indeed these players may be sought after by clubs for their sporting prowess, regardless of their violent behaviour), sending a message to football followers that such behaviour is acceptable and a private matter.  

There were only a few studies available that examined a relationship between football matches and domestic violence. Most of these noted an increase in domestic violence reports on days of major football matches. Some of these studies suggest that winning matches leads to increases in frequency of domestic violence, while others suggest that losing matches leads to increases in frequency.

An early study by White, Katz and Scarborough (1992) examined the timing and outcomes of the Washington Redskins football games from 1988-1989 and the frequency of admissions to hospital emergency rooms in northern Virginia. The results indicated that the frequency of admissions of female victims of gun shots, stabbings, assaults, falls, lacerations and being struck by objects increased when the home team won matches. The authors suggested that many of these injuries were the result of domestic violence. Based on a theory that male spectators mirror physical aggression required on the sports field, they argued that having a favourite team win may act as a trigger for assault in some males.

Sivarajasingam, Moore and Shepherd (2005) analysed assault related presentations to the A&E Department in Cardiff from 1 May 1995 to 30 April 2002, during which there were 106 consecutive home and away international rugby and soccer matches. Assault related injury attendances (not necessarily domestic violence related) were significantly higher on those weekends when matches were played (average of 17.53), compared with weekends when there were

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3 The authors note that in recent years some Australian football organisations have taken steps to address the issue of violence against women by football players; e.g. Australian Football League’s 2005 policy, Respect and Responsibility – Creating a safe and inclusive environment for women at all levels of Australian football; the National Rugby League’s Playing by the Rules Project, aimed at promoting ethical sexual decision-making.
no matches (average of 12.65). The times during which Wales won saw significantly greater numbers of assault related injury presentations (an average of 32.56), than for matches where Wales lost (an average of 25.38) (p. 69). Like White, Katz and Scarborough (1992), the authors observed that assault may be associated with positive factors surrounding match wins by a national team, rather than losses. They postulated that levels of self confidence, assertiveness or patriotism could be raised by a winning result, leading to celebration, consumption of alcohol and gathering in groups, behaviours which result in a greater number of assaults. Interestingly, The New Zealand Herald reported increases in domestic violence reports to New Zealand police and refuges following the All Blacks’ Rugby World Cup loss on 6 October 2007 (‘Women suffer rugby backlash’, 9 October, Viewed 15 October 2007 http://www.nzherald.co.nz/section/1/story.cfm?c_id=&objectid=10468736&ref=rss).

Vazquez, Stohr and Purkiss (2005), in their study of domestic violence in Idaho, USA, found that Super Bowl Sunday showed a higher number of incidents (23) than the daily average of incidents (15.6) for the years from 1995-2001 (p. 109). The authors theorised that the Super Bowl additionally generates greater levels of testosterone amongst those who watch football on television and that heightened levels of testosterone are linked to violence. In an earlier paper, Burton Nelson (1994, p. 134) had noted that women’s shelters in Philadelphia, Los Angeles and Marin County, California reported receiving more calls from battered and threatened women on Super Bowl Sunday, than any other day.

A report on the UK police Domestic Violence Enforcement Campaigns also made a link between football matches and increased domestic violence incidents (Goodall, Trevillion and Muncie 2006). In 2006, UK police launched two Domestic Violence Enforcement Campaigns, the second of which was deliberately run during the FIFA (soccer) World Cup finals. On weekdays during the World Cup Finals (for those days that England played), the average number of domestic violence incidents were between 11.69% and 31.42% higher than for the same weekday during the first, non-football campaign. The proportion of difference was not the same for other crime offences; these were lower than those recorded for the first campaign in some cases (p. 35).

For example, Swansea Borough Command Unit (BCU) reported that domestic violence incidents during the second (football) campaign in June 2006 were 36.8% higher than the numbers recorded in June 2005. The report suggested that while perpetrators were ultimately responsible for their violent behaviour, levels of alcohol consumption and the ‘highly charged emotional nature of matches increased the prevalence of incidents (p. 36).

Research in the USA by Sachs and Chu (2000) has been less conclusive about the relationship between football matches and domestic violence. Set in Los Angeles County, the study examined links between domestic violence police call outs and professional football games from 1993-1995. During the 1993-94 football season, there was an increase in police call outs for domestic violence for Sundays on which football was played, compared with non-football Sundays (an average increase of 68%). There was also an increase on football Sundays compared with previous Wednesdays (an increase of 100%) (p. 1195). However, during the following football season there was no percentage increase above the baseline between Wednesdays and Sundays for football, playoff or Super Bowl weeks. The authors suggested that the planned move by two local football teams to other cities could have reduced fans’ interest in the game during the second season.

Sach and Chu’s (2000) findings, notwithstanding, the few studies that have examined football matches and domestic violence point to a positive association.

DATA GATHERING AND ANALYSIS

Based on the literature review, this study focussed on the following factors for investigation of Australian data:

- calendar month
- calendar events: i.e. the Christmas and New Year period (18 December – 14 January), New Year’s Eve and Day, Australia Day (26 January), Easter (variable annually), ANZAC Day (25 April), Queen’s Birthday (variable across states and territories) and Melbourne Cup Day (first Tuesday in November)
- major football matches (2003 Rugby World Cup, Australian Football League grand final, Australian Rugby League grand final, Rugby Union grand final and State of Origin matches).

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4 The timing of the second campaign was based on research indicating that the numbers of domestic violence incidents increases during major football match events. The campaign was aimed at preventing domestic violence from occurring and providing a rapid response to incidents.
An exploratory study was undertaken to investigate fluctuations in the numbers of domestic violence reported incidents across three years and possible correlations with seasons and calendar and football events.

In the study, domestic violence was measured through reports of domestic assault\(^5\) and all sexual assault to police, and domestic violence orders\(^6\) applied for or made. These data are conservative, as not all domestic assaults or sexual assaults are reported to police, not all reported assaults are recorded,\(^7\) and not all victims make applications for domestic violence orders. In addition, reporting is not always made at the time of the event, complicating associations with particular times or events.

Statistical data about domestic violence in Australia is maintained by a range of organisations and agencies. Police agencies and organisations responsible for keeping crime statistics in each Australian state and territory were contacted for this paper and asked to provide data concerning the number of reports of domestic assault, assault and sexual assault to police for three years from 2003-2005. Justice agencies in each state and territory were also contacted and asked to provide data concerning the number of domestic violence orders applied for or made. List 1 opposite provides a summary of data received from Australian jurisdictions and more information about the data requested and provided is also detailed.

For the purposes of tracking the frequency of reported violence for key dates (such as, New Year’s Day), organisations were asked to provide daily data where possible. This was only available for NSW, South Australia and the Northern Territory. Otherwise, organisations were asked for monthly data for the period from January 2003 to December 2005. Where it was more convenient for an agency to provide a different time period, this was acceptable as the paper did not attempt to make inter-jurisdiction comparisons. For some agencies, data were more easily produced by financial year.

The data were analysed by day and month to identify any consistent patterns across the three years. The analysis sought to identify those months that indicated an above average number of reported violence incidents for the year. That is, those months that indicated a higher number of reported domestic violence, assault, sexual assault or domestic violence order applications than the average for the year in that state or territory. The term ‘average’ is used here to refer to the mean (rather than the mode or median).

The data were also matched with calendar events and football match dates to identify any peaks in numbers of domestic violence reports at these times.

**Peaks**

For the purposes of this analysis a ‘peak’ is said to exist when both of the following occur:

- a month has the highest number of reports in a year, for at least two of the three years.
- a month has the highest monthly average across the three years.

The appendix\(^*\) provides tables of the statistical data and corresponding graphs.

**Predictive model**

The study sought to examine relationships between certain calendar events (i.e. public holidays), days of major football matches and reported domestic assault. In order to do this, researchers at the University of New South Wales School of Mathematics and Statistics developed a multiple linear regression model for this study and supplied the analyses of the model. The model was used to identify a mathematical relationship between the total number of domestic assaults and the variables; i.e., the public holidays and major football match days. The purpose of the model was to predict the number of reported domestic assaults for any particular weekday, holiday or football match day. Accurate prediction of reported domestic assaults for any particular day could be of value to services and agencies.

For the period 2003–05, daily counts of reported domestic assault were available for NSW, South Australia and the Northern Territory. The study examined public holidays common to all three jurisdictions; i.e., New Year’s Day, Australia Day, Easter (Good Friday to Easter Monday inclusive), Anzac Day and the Queen’s Birthday and Labour Day holiday. The analysis also considered the Christmas

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5. In this paper, domestic assault refers to assaults against a person with whom the offender has a domestic relationship. The definition of domestic relationship varies between Australian states and territories but generally includes current or former spouse, de facto partner and relatives.

6. These are known as apprehended domestic violence orders in New South Wales (NSW), family violence intervention orders in Victoria, intervention orders in South Australia, domestic violence orders in Queensland, violence restraining orders in Western Australia, restraint orders in Tasmania, protection orders in the Australian Capital Territory (ACT) and restraining orders in the Northern Territory.

7. For example, if a woman attends a police station and discloses a series of assaults, best practice would be for each assault to be recorded as a separate incident. However, there may be some variation from this practice.

\(^*\) The Appendix is available online as a separate document.
List 1: Summary of data received

<table>
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<th>ORGANISATION</th>
<th>DATA RECEIVED</th>
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| NSW Bureau of Crime Statistics and Research (BOCSAR) | • domestic and non-domestic assaults by day and month, and whether or not they were alcohol related for the years 2003-2005  
• domestic violence orders (including interim orders) granted by month for the years 2003-2005  
• sexual assaults by month, for the years 2003-2005 |
| Victoria Police | • family incidents, assaults arising out of family incidents, all assaults by month for July 2002-June 2005  
• sexual assaults by month for July 2002-June 2005 |
| South Australian Office of Crime Statistics and Research (OCSAR) | • domestic and non-domestic assaults by day for the years 2003-2005, and whether or not they were alcohol related  
• sexual assaults by day for the years 2003-2005, and whether or not they were alcohol related  
• outcomes of applications for domestic violence orders, by month for 2003-2005  
• breaches of domestic violence orders, by month for 2003-2005, by date of offence and date of report  
• assaults and sexual assaults, by day for 2003-2005, by date of offence and date of report |
| Queensland Police | • domestic and non-domestic assaults and whether they were alcohol related by month for July 2004-June 2006  
• sexual assaults by month for July 2004-June 2006 |
| Western Australia Police | • assaults by month from July 2002-June 2005  
• sexual assaults by month from July 2002-June 2005 |
| Tasmania Police | • family violence incidents, assaults against partners and ex-partners, all assaults, by month from 2003-2005  
• sexual assaults by month from 2003-2005 |
| Australian Federal Police | • family violence incidents by month from July 2001-June 2004 |
| Northern Territory Police, Fire and Emergency Services | • domestic and non domestic assaults by day from 2003-2005 |
| Northern Territory Department of Justice | • applications for domestic violence orders by month from 2003-2005 |
| Australian Institute of Criminology (AIC) | • national intimate partner homicide data by month for 2001/2-2003/4 |
| ACT Magistrates Court | • applications for domestic violence orders, by day for 1 January 2004-30 November 2006 |


9 The Queensland Police only recently introduced a domestic violence indicator into their database (in July 2004) and were, therefore, only able to provide two years’ data for domestic and non domestic assaults and whether they were alcohol related, and sexual assaults by month for July 2004-June 2006. The Queensland Department of Justice was not able to provide data regarding domestic violence orders in the time frame available.

10 Western Australia Police were not able to provide information about domestic assault in the time available for this research. However, their website includes assaults and sexual assaults by month from July 2002-2005. This data may be affected by the changes in the legislation regarding family and domestic violence that came into operation on 1 December 2004. This legislation alters the obligations of police when investigating family violence and broadens the grounds for intervention.Hovane, M & Harrison, P 2004, ‘New domestic and family violence legislation in Western Australia’, Australian Domestic and Family Violence Clearinghouse Newsletter vol. 3, pp. 1 - 3. Available: http://www.austdvclearinghouse.unsw.edu.au/PDF%20files/NewDomestic%20and%20Family%20Violence%20Legislation.pdf. In Western Australia, restraining orders are not given a domestic violence indicator in the database, so no data on these orders are available.

11 This data was significantly affected by the introduction of the Safe at Home initiative, that involves a pro-arrest and pro-prosecution policy. An information campaign in the electronic media accompanied the initiative. The Family Violence Act 2004 (Tasmania), proclaimed on 30 March 2005, formed the legislative basis for Safe at Home. Australian Bureau of Statistics 2006a, 2005 Recorded Crime – Victims, ABS, Canberra. Cat. no. 4510.0.
The Australian Federal Police were unable to provide any monthly data regarding assault in the Australian Capital Territory. However, the Analysis of Family Violence Incidents July 2003–June 2004 Final Report Taylor, N 2006, Analysis of Family Violence Incidents July 2003–June 2004. Final Report, Australian Institute of Criminology, Canberra contains family violence incidents by month from July 2001–June 2004, that has been drawn on for this paper.

At Appendix A, Table A5. “Family violence incident” is defined as “an incident where a person uses violent and or abusive behaviour to control someone with whom they have some type of family relationship” (p. 3).

Some of this data may have been affected by the October 2005 amendment to the Domestic Violence Act 1992 and the General Order issued to the Northern Territory Police regarding procedures for policy investigating domestic violence offences: Australian Bureau of Statistics 2006a, Explanatory Notes at p. 64.

Intimate partner homicide includes murder and manslaughter but excludes driving causing death. Intimate partner relationship includes spouse, separated spouse, divorced spouse, de facto, ex-de facto, extra-marital lover/former lover, girlfriend/boyfriend, former girlfriend/boyfriend, homosexual relationship, and former homosexual relationship. These figures must be treated with caution because of the low number of intimate partner homicides: about six per month.

and New Year periods, from 18 December to 14 January inclusive, and the Melbourne Cup Day. The Melbourne Cup horse race is followed nationwide, although only Victoria has a public holiday for the event (metropolitan region only).

The days of the State of Origin matches, the Australian Football League (AFL) grand final, the Australian Rugby League (ARL) grand final and the 2003 Rugby World Cup were considered for the model. Only the days of the seven Rugby World Cup games played by Australia were included in the analysis.

To assess the trend, the analysis used a linear trend over a three year period.

### Results from Australian Domestic Violence Data

#### Variation according to calendar month

#### Assaults and family incidents

Over the three years of available data, three of the seven Australian jurisdictions showed December or January peaks in reported domestic or family assault. In all jurisdictions over the three years, either January or December had the highest monthly average of reported domestic assaults or family/domestic violence incidents.

The NSW data showed a January peak in domestic assaults over the three years. January had a three year average of 2,633 reported domestic assaults; 20% higher than the overall three year monthly average of 2,194 (see Table 4). January also recorded the highest number of assaults for all months over the three years (2,746 assaults in 2003).

The Victorian data showed a January peak in family incident reports. The January three year average of 2,717 family incident reports was 15% higher than the three year monthly average of 2,369 (see Table 15). January also recorded the highest number of reports in two of the three years (2,705 reports in 2002-03 and 2842 in 2004-05).

A December peak for assaults arising out of family incidents is evident in the Victorian data, with a December three year average of 493; 21% higher than the three year monthly average of 406 (see Table 16). It is important to note that this data appears to be significantly affected by a change in police practice in August 2004.

The Tasmanian data shows a December peak for reported family violence incidents. The December three year average of reported family violence incidents was 391. This is 27% higher than the overall monthly average for the three years of 308 (see Table 33). However, this number appears to be distorted by a change in police practice in September 2004. December also recorded the highest number of reported incidents in each of the three years from 2003 to 2005.

In Tasmanian data, the December three year average of 94 reported assaults against partners and ex-partners, was 32% higher than the three year monthly average of 69 (see Table 34). Again, this figure is likely to be affected by the change in police practice.

The highest monthly averages over three years were recorded in December months for reported domestic assaults in Queensland (Table 19), family violence incidents in the ACT (Table 37) and domestic assaults in the Northern Territory (Table 39). However, the highest number of incidents or assaults was not recorded in December in more than one year. In South Australia, January recorded the highest three year average for domestic assault (481), although this month did not record the highest number of incidents or assaults in more than one year (see Table 25). Therefore, these jurisdictions did not record peaks in December or January months.

#### Non domestic assault

The results described above have been compared with patterns of violence against non family
members. Only NSW, the Northern Territory, Queensland and South Australia were able to provide data on non domestic assaults. For Tasmania, Victoria and Western Australia, data on all assaults were examined. Only two jurisdictions (NSW and Victoria) recorded peaks.

In NSW, non domestic assault peaked in December, with a three year average of 4183. This was 12% higher than the three year monthly average of 3742 (see Table 7). In Victoria, all assaults peaked in March with a three year average of 2375; this was 10% higher than the three year monthly average of 2162 (see Table 17). In Western Australia, December recorded the highest three year average (1774) but the highest numbers of assaults were in March 2002-03 (1458), March 2003-04 (1674), and December 2004-05 (2257) (see Table 23). No peaks were observed in the Queensland, South Australia, Tasmania or the Northern Territory data (see Tables 20, 28, 35 and 40).

**Domestic violence orders**

The ACT and the Northern Territory were able to provide data regarding applications for domestic violence orders, while South Australia and NSW provided data regarding orders issued. The remaining jurisdictions were unable to provide data for orders applied for or made in the time period available. An *application* for an order may be a more useful measure in this study as it would occur closer in time to the abusive incident, while an order could be made weeks or months later.

None of the jurisdictions showed a peak in applications or final orders in summer months (although NSW showed a January peak for Telephone Interim Orders [TIOs]). Both NSW and South Australia showed a March peak in domestic violence orders issued.

The ACT did not show a monthly peak for applications of domestic violence orders. However, the January three year average of 72 was 16% higher than the monthly average of 62 (see Table 38). The Northern Territory also did not show a monthly peak in applications for orders, although the October three year average of 182 was 20% higher than the monthly average of 153 (see Table 41).

NSW provided information on domestic violence orders issued by month. NSW also provided information on Telephone Interim Orders, normally made shortly after an alleged incident and at the same time as an application for an order. In NSW, TIOs peaked in January, possibly because most local courts are closed in late December and early January. The January three year average for TIOs was 1048; 26% higher than the three year monthly average of 831 (see Table 11). Court issued interim orders peaked in March with an average of 3058; 12% higher than the three year monthly average of 2721 (see Table 12). Final orders also peaked in March, with an average of 1900 orders; 12% higher than the three year average of 1701 (see Table 13).

South Australia provided data on the outcomes of domestic violence order applications by month. A peak in domestic violence orders issued was evident in March, with an average of 45 orders issued. This was 18% higher than the overall three year monthly average of 38 (see Table 32).

**Homicide**

In Australia, an average of six intimate partner homicides took place per month from 2001-02 to 2003-04 (Mouzos and Houliaras 2005). January had the highest monthly average over the three years with 8.3 homicides, although there was no peak (see Table 42). It is worth noting that it is most commonly men who kill their female partners. The *National Homicide Annual Report for 2004-2005* shows there were 66 intimate partner homicides for that period, with three quarters involving a male killing his female partner (Mouzos and Houliaras 2005).

**Sexual assault**

All jurisdictions except the Northern Territory and ACT provided sexual assault data. Western Australia was the only jurisdiction to show a peak in sexual assaults, with a peak in January. The January three year average of 272 reported sexual assaults was 26% higher than the three year monthly average of 216 (see Table 24).

The authors eventually deemed the data gathered about sexual assault as less useful for the purposes of this paper. This is due to the (sometimes considerable) delays between the occurrence of the offence and reporting to police. As such, reporting times can be poor indicators of when sexual assaults occurred over the course of a year. Monitoring reports to individual services (particularly crisis services) may provide more accurate data.

Anecdotal feedback from some services has indicated that education campaigns, high profile sexual assault cases and changes in legislation governing reporting and prosecuting sexual assault can significantly affect reporting rates, particularly for historical cases. These variables were not tested in this study.
Alcohol

Data regarding alcohol related assaults were obtained for NSW, Queensland and South Australia only. In the NSW data, “alcohol related” assaults included those that occurred where either the victim or offender or both were drinking prior to the incident, and assaults that occurred in or within view of a hotel, club or other liquor outlet. For the Queensland and South Australian data, “alcohol related” assaults referred to those incidents where only the offender was affected by alcohol.

Of the 78,968 domestic assaults reported to NSW Police between 2003 and 2005, about one third (36%) were recorded as alcohol related (see Tables 5, 10). Graph 1 indicates that the proportion of domestic assaults recorded as alcohol related rises from September 2004, suggesting a change in police recording practices. In 2005, 42% of domestic assaults were recorded as alcohol related. Generally, the proportion of assaults that are alcohol related is reasonably stable throughout the year, suggesting that alcohol can explain some but not all of the December and January peaks in assaults. Even non alcohol related domestic assaults were 20% higher than the average in January.

Of the 6,229 domestic assaults reported to Queensland Police between July 2004 and June 2006, 55% were identified as alcohol related (see Tables 19, 21). The proportion fluctuated between 48% and 62%, but not with any obvious seasonal pattern.

Graph 2 shows the percentage of domestic assaults in Queensland that were alcohol related for 2004-05 and 2005-06. The graph does not show any rise in the proportion of alcohol related domestic assaults in the summer months, suggesting that alcohol contributes to only some of the summer peak of assaults.

Of the 15,179 assaults on family members reported to the South Australian police between 2003 and 2005, 29% were recorded as alcohol related (see Table 26). This figure varied between 24% and 32% during the year but not with any distinct seasonal pattern.
Variation for calendar events

This research was interested in whether the number of domestic violence reports increased around particular calendar events. The multiple linear regression analysis used a series of periodically varying functions to capture the seasonal pattern of reported domestic assaults. The model attempted to assess if days of the week differed in the number of reported assaults. Day of the week effects were initially assessed using a baseline of one day of the week (e.g. Wednesday). If other days did not show a significantly increased number of assaults above the baseline, they were combined in the final models for each state and territory.

The impact of public holidays was considered on both the day of the event and the following day. None of the days following the selected public holidays showed significant increases, indicating that the effect (if any) of these events is short lived.

Initially, all the public holidays were included in the regression model. Results from that analysis were considered for statistical significance. Individually, certain holidays did not differ significantly in their impact on the number of reported assaults. The model then sought to determine whether, when combined, they had a significant impact on the number of reported assaults.

The final regression analysis included any individual variables and combined variables that were statistically significant at the 5% level of significance (P - value ≤ 0.05), excluding day of the week effects. That is, a smaller P value for the event day (i.e. less than 0.05) indicates that the number of reported assaults was more significant. When those event days that were not significant were combined or dropped from the model, there was an increase relative to the baseline on the considered event days.

The results for each jurisdiction are as follows (excluding the details for the seasonal pattern).

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>COEFFICIENT VALUE</th>
<th>PERCENTAGE INCREASE RELATIVE TO BASELINE</th>
<th>P-VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept (Monday, Tuesday and Wednesday baseline)</td>
<td>62.4</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Thursday</td>
<td>2.5</td>
<td>4%</td>
<td>.01</td>
</tr>
<tr>
<td>Friday</td>
<td>7.5</td>
<td>12%</td>
<td>.00</td>
</tr>
<tr>
<td>Saturday</td>
<td>23.8</td>
<td>38%</td>
<td>.00</td>
</tr>
<tr>
<td>Sunday</td>
<td>26.9</td>
<td>43%</td>
<td>.00</td>
</tr>
<tr>
<td>Christmas New Year period</td>
<td>3.8</td>
<td>6%</td>
<td>.04</td>
</tr>
<tr>
<td>New Years Day</td>
<td>98.2</td>
<td>157%</td>
<td>.00</td>
</tr>
<tr>
<td>Australia Day, Easter, Queens Birthday and Labour Day holiday</td>
<td>9.2</td>
<td>15%</td>
<td>.00</td>
</tr>
<tr>
<td>ANZAC Day</td>
<td>32.4</td>
<td>52%</td>
<td>.00</td>
</tr>
<tr>
<td>Melbourne Cup Day</td>
<td>36.4</td>
<td>58%</td>
<td>.00</td>
</tr>
</tbody>
</table>
New South Wales data and public holidays

Table 1 sets out the results of the model for NSW and public holidays over the years 2003-05.

In the NSW model, the numbers of reported domestic assaults on Mondays, Tuesdays and Wednesdays were not statistically significant from each other. Given this, the model combined these days and averaged them to form the baseline (intercept). On the baseline, one would expect 62.4 reported domestic assaults on any one day.

The model can be used to predict changes to the baseline for different public holidays. For example, it is possible to predict the future number of reported assaults on New Year’s Day in NSW through the following equation:

\[
62.4 + (98.2 \times 1) = 160.6
\]

The model predicts on New Year’s Day there will be 98.2 reported domestic assaults above the baseline, to give a total number of 160.6 reported assaults for that day.

To predict the total number of assaults on New Year’s Day when it falls on a Friday, the following equation is used:

\[
62.4 + (7.5 \times 1) + (98.2 \times 1) = 168.1
\]

The total number of reported assaults will be 168.1 for that day.

The P value in the Table indicates whether an increase in the number of reported assaults for a public holiday was statistically significant. Increases in reported domestic assaults on Thursdays, Fridays, Saturdays, Sundays, New Year’s Day, the combined holidays, ANZAC day and Melbourne Cup days are leading towards significant. The P value becomes smaller for these days.

The linear trend for NSW was not statistically significant, indicating that reported assaults are not rising or falling over the three year period. The trend figure is not included in the Table.

Graphs 4 to 6 plot the total number of reported domestic assaults in NSW for the years indicated and the predicted number generated by the model. The Y axis indicates the number of assaults and the X axis indicates days of the month.

The above regression model explains approximately 65% of the variation in the daily series of assaults. The series of residuals from the model fit (observed assaults minus the model predicted assaults) showed evidence of mild positive autocorrelation. The effect of this would be to reduce the significance of the variables above but not to the point where they would be non-significant. The source of autocorrelation is likely to be omitted variables in the regression model, such as temperature.
South Australia and public holidays

The public holidays tested for South Australia were the same as for NSW. In the model, the increases on Tuesday, Thursday and Friday, relative to Wednesday, were not statistically significant and so the four days were combined to provide a baseline average level against which the other days (Saturday, Sunday and Monday) were compared.

Altogether, when compared to NSW, the number of reported domestic assaults was considerably reduced in South Australia. In relative terms, there was much greater day to day variability for South Australia than for NSW. This contributes to the poor fit for the South Australian data.

The model shows an increase of 5.1 domestic assaults for the day of the Melbourne Cup (a 39% increase relative to the baseline). Other public holiday events did not show a significant increase in assaults.

As with NSW, the linear trend was not significant and is not included in Table 2.

Table 2: South Australia and public holidays for years 2003-05

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>COEFFICIENT VALUE</th>
<th>PERCENTAGE INCREASE RELATIVE TO MODEL INTERCEPT</th>
<th>P-VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept (Tuesday, Wednesday, Thursday &amp; Friday baseline)</td>
<td>13.1</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Monday</td>
<td>1.9</td>
<td>15%</td>
<td>.00</td>
</tr>
<tr>
<td>Saturday</td>
<td>1.0</td>
<td>7%</td>
<td>.01</td>
</tr>
<tr>
<td>Sunday</td>
<td>2.3</td>
<td>18%</td>
<td>.00</td>
</tr>
<tr>
<td>New Years Day</td>
<td>4.4</td>
<td>34%</td>
<td>.06</td>
</tr>
<tr>
<td>Melbourne Cup Day</td>
<td>5.1</td>
<td>39%</td>
<td>.03</td>
</tr>
</tbody>
</table>

Northern Territory and public holidays

The same public holidays were tested in the Northern Territory model. In the model, the increases on Tuesday, Thursday and Friday and Saturday, relative to Wednesday, were not statistically significant and so the five days were combined to provide a baseline average level, against which the other days (Sunday and Monday) were compared.

In Table 3 (over page), the linear trend was calculated for annual effect and is shown to be statistically
significant. This is an indicator that reported domestic assault is increasing annually in the Northern Territory.

Based on this analysis, to predict the total assaults for New Year's Day in the Northern Territory in 2008, the linear trend is multiplied by six (i.e. 2003 equals one, 2004 equals two, 2005 equals three and so on). Therefore, total reported assaults for New Year's Day in 2008 is predicted to be 12.28:

\[
4.8 + (0.63 \times 6) + (3.7 \times 1) = 12.28
\]

Graph 9 plots the total number of reported domestic assaults and predicted number for 2003-04 and 2004-05 in the Northern Territory for New Year's Day. Graph 10 plots the total number of reported domestic assaults and predicted number for 2003, 2004 and 2005 in the Northern Territory for the Melbourne Cup.

Graph 9: Northern Territory Christmas New Year period

Key: Solid line = total number; Broken line = predicted values of the fitted model

The above regression model only explains approximately 13% of the variation in the daily series of assaults for the calendar events tested. The series of residuals from the model fit showed no evidence of autocorrelation. There are substantial periods of the record where the model did not fit well, indicating that there were important omitted explanatory variables, such as temperature, other sporting or other events that are particular to the Northern Territory. In particular, there were times in each year where peaks in violence counts were not well modelled by the fitted model.

Altogether, when compared to NSW, the level of domestic assaults was considerably reduced, leading to data that shows, in relative terms, much greater day to day variability for the Northern Territory than for NSW. This affects the low percentage of variation explained in the Northern Territory analysis. Because the daily domestic assaults in the Northern Territory were rather low, with the occasional zero counts on some days, Poisson regression was also used as an alternative to the above linear regression. The results were entirely consistent with those presented above.

For New Year's Day the Northern Territory data showed an increase of 3.7 domestic assaults (79% increase)
relative to baseline) and an increase of 3.1 domestic assaults for the day of the Melbourne Cup (64% increase relative to baseline). Other public holiday events did not show a significant increase in assaults.

**Variation for football events**

As with the previous analysis, a multiple linear regression model was used to examine the relationship between the number of domestic assaults and football events. The linear trend was not significant and is not indicated in Table 4. Certain football events were combined (to determine whether the combinations were significant) because individually they did not differ significantly in their impact on assaults.

Table 4 shows that in NSW, the increase in reported domestic assaults associated with the combined football finals was 1.9 (a 3% increase relative to the baseline). In South Australia and the Northern Territory, no significant increases were apparent on football match days.

**Table 4: NSW and football events for years 2003-05**

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>COEFFICIENT VALUE</th>
<th>PERCENTAGE INCREASE RELATIVE TO MODEL INTERCEPT</th>
<th>P-VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept (Monday, Tuesday and Wednesday baseline)</td>
<td>6.4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Football finals (ARL, AFL, World Cup, State of Origin)</td>
<td>1.9</td>
<td>3%</td>
<td>.05</td>
</tr>
</tbody>
</table>

**Discussion of the Findings**

Much of the overseas literature appears to support a theory that domestic violence incidents increase with warmer temperatures and summer months (and perhaps amount of daylight). The Australian statistical data indicates a seasonal pattern, with most states and territories showing higher number of reported domestic violence assaults in December and January. (January was also the month with the highest number of intimate partner homicides across the country, from the years 2001-02 to 2003-04, although there were no peaks in summer months for domestic violence orders).

The Northern Territory monthly average for the three years analysed also shows a rise in domestic assault reports in October, November and December. However, the ACT showed no clear trend towards the summer months. This may be due to its smaller population and the capacity for the data to be skewed by small numbers of incidents.

Some of the research canvassed in the literature review has suggested that temperature and other variables are closely linked to numbers of domestic violence reports. The analysis of Australian data did not examine correlations between daily temperature and other climatic conditions and domestic violence reports. While most Australian states and territories are in temperate regions and have a warm summer and cool winter, parts of the Northern Territory, Western Australia and Queensland are tropical and are characterised by wet and dry seasons, rather than large temperature variations. Further research could focus on these variables in different areas of the country.

The literature indicates that the number of domestic violence reports rises for certain calendar events and holidays, especially those that bring victims and perpetrators together and involve the consumption of alcohol. Particular calendar events that seemed to be linked to increases in the number of domestic violence incidents varied from study to study and place to place, suggesting that local conditions (and perhaps behaviours associated with these occasions) play an important part in dictating which calendar events would see a rise in numbers of reports. For this study, daily data on domestic violence reports to police were only available from NSW, South Australia and the Northern Territory. The analyses of the data suggest that around some public holidays, the number of reported domestic violence reports do increase.

Interesting results were found for New Year’s Day, with increases in reports in NSW of 157%, 34% in South Australia (although these results were not significant) and 79% in the Northern Territory above the baseline (see Tables 1, 2, 3 and Graphs 4, 7 and 9). Other public holidays were associated with increases in reported domestic violence in NSW but not in the Northern Territory or South Australia. In NSW an increase of 15% was evident for the combined Australia Day, Easter, Queen’s Birthday and Labour day holidays, and an increase of 58% for ANZAC Day (see Table 1, Graph 5). Similarly, the Christmas and New Year period was associated with a small increase in reported domestic violence in NSW but not in the Northern Territory or South Australia.
Routine activity theory, discussed below, could predict that the extra contact between family members on public holidays would result in increases in domestic assault. Furthermore, a significant proportion of reported domestic assaults are perpetrated by separated partners, so public holidays may result in extra opportunities for contact.

Significant differences were observed on Melbourne Cup day. Counts were 58% higher than expected in NSW, 64% higher in the Northern Territory and 39% higher in South Australia (see Graphs 6, 8 and 10). The large increase in reported domestic assaults on Melbourne Cup day suggests that further research is warranted into the interaction between gambling, alcohol consumption and domestic violence.

Of the football games examined, the AFL grand final and the Rugby World Cup games are likely to have been watched in all three jurisdictions, while the NRL grand final and State of Origin matches may be of most interest to NSW (and Queensland) sports fans. In South Australia and the Northern Territory, no significant changes were identified for football match days, while NSW saw an increase of 3% in domestic violence reports.

The few studies available about major football matches and their relationship with domestic violence frequency indicate a positive relationship. However, the analysis of the Australian domestic violence data and major football matches does not show any clear relationship. The research did not attempt to identify why the Australian data showed such different results, although an hypothesis could be posed.

It may be that for the Australian football matches examined, the teams did not have a sufficient following to have an impact on state and territory-wide domestic violence figures. In the UK, Sivarajasingam, Moore and Shepherd (2005) examined correlations between the fortunes of the national team in international rugby and soccer matches and assault figures. The UK Home Office report (Goodall, Trevillian and Muncie 006) reported on increases in domestic violence when the national soccer team played in the FIFA World Cup finals. While not examining national team matches, the US studies examined matches that involved city-based teams with a city wide following (Vazquez, Stohr and Purkiss 2005; White, Katz and Scarborough 99).

In contrast, AFL matches involve many Melbourne teams, two in South Australia and two in Western Australia. While there are single teams from Queensland and NSW, this is not the main football code followed in those states. There are also many rugby teams from states and cities in the NRL and rugby union competitions. While state rugby teams do play against each other in State of Origin matches, these teams are composed especially for these matches and may not have the same ground-swell of support as if they played each week of the season. It may be that football matches played between local teams in Australia are associated with local increases in domestic violence but not at a sufficient level to affect state or territory wide figures. In investigating these issues further, it would be valuable to examine the frequency of domestic violence incidents or reports at a local level.

Associated factors

This paper does not suggest that seasonal changes, calendar events or football matches cause people to become more violent. However, these factors may act to increase opportunities for perpetrators to be violent or may be used by perpetrators as excuses for violence. A number of possible associated factors have been posed in the literature, which may affect this relationship. These include increased contact between victims and perpetrators during holiday periods, increased contact through child contact arrangements and alcohol consumption.

Routine activity theory (Cohen and Felson 979) suggests that crime will occur when a motivated offender comes into contact with a suitable victim in the absence of a capable guardian (that is, a person who could prevent the crime). This theory points to increased contact between family members or couples that usually occurs during holiday periods, including between victims and perpetrators of domestic violence, as a possible explanation for the increase in domestic assault.

Holidays, particularly around Christmas, are also often times during which child contact and hand over takes place between separated couples with children. In cases involving domestic violence, these can be dangerous occasions for both adults and children. For example, Sheehan et al. (2005) conducted a study of 396 families utilising Child Contact Services in Australia. The study found that for the majority (78%) of families surveyed, domestic violence and or alleged child abuse had occurred during the use of these services. Kaye, Stubbs and Tolmie (2003) found in their study of 35 Australian women who were resident parents facilitating contact with the father, only 5 (14.3%) said they had not experienced violence at contact changeover. Moreover, research by Women’s Health West and the Western Region Family Violence
Prevention Network (2003) has made reference to statistical evidence that women seek intervention orders more often after festive family holiday periods. The report noted that data from the Sunshine Court in Victoria indicated a sudden surge in the applications for Intervention Orders at two specific times of the year: after Christmas and after Easter. The report suggested arrangements for child contact at these times as a contributing factor (p. 36).

The literature also makes many references to the importance of alcohol consumption around certain calendar events and football matches and a corresponding increase in the frequency and severity of domestic violence. In other crime research, alcohol has been closely linked with violence, even if the nature of that relationship remains unclear (Australian Bureau of Statistics 2006b; Chan 2005; Mouzos and Makkai 2004). The relationship between alcohol and violence is complex. A key findings paper on alcohol and interpersonal violence produced by the UK Home Office identified several ways in which alcohol may contribute to higher numbers of intimate partner violence incidents (Finney 2004). Perpetrators may drink in order to find an excuse for their violent behaviour. Disparate drinking patterns between the perpetrator and the victim may act as a source of conflict, leading to violence. Alcohol may also act as a disinhibitor, where there is a pre-existing conflict or violence; although Bennett and Williams (2003) and others have cautioned against simplistic views of alcohol as a disinhibiter, leading to violence.

The findings of this study indicated that while alcohol may contribute to some of the summer seasonal peak in reported domestic violence, it does not explain the entire peak. This paper recognises the correlation between alcohol consumption by perpetrators and the frequency and severity of domestic violence but does not suggest the relationship is causal, although alcohol may be a contributing factor.

It is possible that the increase in reported domestic assaults indicates that a higher proportion of assaults are being reported, rather than an actual increase in the number of incidents (bearing in mind that in 2001, women asked about all assaults by males since the age of fifteen said that only 31% of those assaults were reported to police: Australian Bureau of Statistics 2006b, Table 15). However, in an earlier survey of Australian women (Australian Bureau of Statistics 1996, Table 4.6), the most common reasons women gave for not reporting assaults (dealt with it herself, did not regard it as a serious offence, did not think police could do anything, fear of perpetrator), do not have an obvious correlation with seasons or calendar events. Women were more likely to report assaults if the perpetrator was a previous partner (34.6%), rather than a current partner (6.3%) (Australian Bureau of Statistics 1996, Table 4.7) and if the woman was physically injured (29.9%) (Australian Bureau of Statistics 1996, Table 4.8). Again, these features of the assaults do not obviously correlate with seasons or calendar events.

Responding to rises in domestic violence numbers

How does this research inform service providers and agencies? While the research was able to identify some correlations between reported domestic violence and certain calendar events and times of the year, it could not definitively state why this is the case. However, knowing the precise triggers for violence may be less important in terms of prevention than knowing when peaks in domestic violence incidents are going to occur. The following example from the UK is a case in point.

Research by Sivarajasingam, Moore and Shepherd (2005) suggested a link between large scale sporting events and increases in violent crime, including domestic violence. Assuming a link based on that research, UK police timed the second Domestic Violence Enforcement Campaign to coincide with the 2006 FIFA World Cup Finals. The police did not identify what the triggers for domestic violence might be but sought to proactively address a rise in domestic violence through a range of strategies.

The campaign was run in 56 Borough Command Units (BCUs) across the UK. One strategy focussed on known dangerous repeat offenders by warning them that they were being monitored, acting on outstanding warrants, checking on bail compliance and where they re-offended, allocating extra resources to their investigation and prosecution. Other strategies included using digital cameras and video recorders to improve evidence gathering, using recordings of emergency calls as evidence and pre-preparing evidence of bad character (that is, previous convictions). The effect of such efforts is of most interest in this context in demonstrating how prediction of a likely rise in domestic violence could be used to introduce prevention and prosecution measures.
LIMITATIONS OF THE STUDY

The research for this paper was circumscribed by the parameters of the study and some shortcomings of the data. Firstly, the primary data used in the research were reports to police of domestic violence, assaults, sexual assault and applications for AVOs to police or courts. It is well recognised that domestic violence and sexual assault are significantly under reported crimes to police. Therefore, this study does not examine the total level of domestic violence experienced in Australia.

Secondly, Australian states and territories define domestic violence differently, have different recording methods for incidents and provided information for this study for different time periods (e.g. daily, weekly or monthly). Not all states and territories collect the data requested for this paper or could provide it in the timeframe for this research. Because of these factors, the study was unable to compare data across jurisdictions or examine all state and territory data. However, it was possible to examine individual states and territories, and fluctuations in domestic violence related statistics over time.

Thirdly, all of the data used for this research were based on the date of reporting, rather than the date of the incident. Investigation of the data identified that the time of domestic violence incident and the time of reporting to police can differ significantly. This may be more marked for particular types of crimes, such as sexual assault. For many reasons (including shame, fear of not being believed, fear of the perpetrator or trauma) victims may not report domestic violence (including sexual assault) to police days, weeks, months or even years after the offence (and many people never report it). Therefore, data based on the date of the offence may have more accurately described fluctuations in domestic violence than time of reporting.

Finally, it was outside the scope of the research to determine how factors positively correlated with domestic violence incident fluctuations may be related. The paper has not conducted primary research around causal relationships between New Year’s Day celebrations and domestic violence, for example. The purpose of the paper was to identify any correlations. Reference to causal factors remains speculative.

CONCLUDING REMARKS

The research for this paper sought to investigate claims that seasons, calendar and football events positively correlate with increases in the number of reports of domestic violence incidents. Evidence from the limited literature available suggests that there is some degree of correlation, particularly with summer months, New Year’s Day and other calendar events, and major football matches.

The analysis of Australian domestic violence data identified a correlation between higher numbers of reported domestic violence incidents and summer months and some calendar events (i.e. New Year’s Day and Melbourne Cup). Australia Day, Easter, ANZAC Day and the Queen’s Birthday were associated with small increases in the NSW data. No correlation between domestic violence figures and major football matches was identified in the Australian data, although it may be that the fortunes of local teams have local (rather than state- and territory-wide) effects.

While the research was not able to investigate the nature of the relationship between times or events and rises in reported domestic violence incidents, some research and anecdotal information suggests that these factors increase opportunities for perpetrators to be violent or are used as excuses for perpetrators to be violent. Factors associated with summer months and calendar events (as well as football matches) that may influence domestic violence figures include financial burdens, child contact arrangements, more time with families, alcohol consumption, more frequent socialising, and emotional and testosterone highs. Further investigation of possible causal relationships may produce a better understanding of how these times and events contribute to a rise in violence. Such investigations may be more effectively achieved through qualitative research drawing on, for example, victims’ time-line accounts of domestic violence incidents, interviews with perpetrators and services and agency providers, and service client data.

The information gathered from the study suggests that services and agencies charged with the responsibility of preventing and responding to domestic violence incidents should increase efforts to address and minimise domestic violence at known peak times. Of significant interest to the authors in this study was the Domestic Violence Enforcement Campaign implemented by the UK police during the 2006 World Cup Final. By assuming domestic violence...

16 South Australia provided data for both offence date and report date but only the report date data was used for this analysis. Some of the offence dates were more than sixty years prior to the report date. As this data were so far outside the three years chosen for examination in the study, the offence date data were not used.
was going to increase at this time (based on available research), regardless of the reasons why, the police proactively engaged in a diverse strategy to target the most dangerous and serial offenders. This approach could be usefully adopted in Australia, based on findings from this study.

Finally, the study analysis also raised issues regarding the varying definitions of domestic violence and recording of such crimes by different Australian states and territories. This issue has been raised elsewhere (Marcus and Braaf 2007; Mulroney 2003). A consistent approach to defining domestic violence and recording incidents across the country would be valuable in providing a national picture of these crimes and facilitating comparison between Australian states and territories.

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