

Exploring the characteristics of family violence relative to packaged liquor outlet density using ambulance attendance data

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Introduction and aims:

- Family violence is a worldwide public health issue ^{1,2}
- Family violence occurs between related individuals or intimate partners ¹
- In Australia, it is estimated that up to 50% of family violence incidents involve alcohol ³
- Alcohol has been shown to increase both the incidence and severity of family violence ^{4,5}
- The density of alcohol outlets within suburbs and communities has been associated with multiple harms, including; risky drinking in adolescents ⁶, intentional and un-intentional injuries ⁷, assaults ⁸, and family violence ⁹
- Previous studies have predominantly considered family violence as a single outcome, without consideration of sub-types of violence
- This study aimed to analyse the role of packaged liquor licence density (i.e. alcohol purchased from supermarkets or bottle shops) on family violence, grouped by:
 - The type of violence
 - The relationship between parties
 - Whether alcohol was acutely involved in the incident

Results (Table 1):

- Packaged liquor licence density did not have a significant effect on threatening behaviour
- As packaged liquor licence density increased, more cases of physical family violence were attended by ambulances
- These results were consistent for both intimate partner violence and other family violence
- Packaged liquor licence density did not have a significant effect on family violence that did not involve alcohol
- As packaged liquor licence density increased, more cases of family violence were attended that either involved alcohol or alcohol intoxication

Table 1 – results of regression modelling

Variable	Coef.	z-value	P-value
Family violence – threat	-0.05	-0.91	0.365
Family violence – physical	0.18	2.73	0.006
Intimate partner violence – threat	0.02	0.74	0.460
Intimate partner violence – physical	0.12	2.36	0.018
Other family violence – threat	-0.04	-0.80	0.423
Other family violence – physical	0.09	2.16	0.030
Family violence – alcohol involved	0.15	3.55	<0.001
Family violence – alcohol intoxication	0.13	3.30	0.001
Family violence – no alcohol involved	0.08	0.82	0.410



Methods:

- The study uses data from 171 postcodes in Victoria, Australia (2016-17 financial year) that met inclusion criteria
- Packaged liquor licence density was calculated from liquor licensing records
- Family violence data was obtained from coded ambulance records, collected as part of the Ambo Project
- Violence was differentiated into threatening behaviour or physical violence
- Intimate partner violence was when the third party was a partner
- Other family violence was when the third part was a child, parent, or other family member
- Alcohol involvement was quantified based on paramedic assessment and self-report of whether alcohol had been consumed and whether the patient was deemed to be intoxicated with alcohol
- Analysis was conducted as mixed-effects generalised linear models, controlling for socio-economic status

Conclusions:

- We found a consistent association between serious family violence and the density of packaged liquor outlets
- Findings are consistent with the hypothesis that alcohol influences violence severity
- A more robust public discussion is needed about the relationship between alcohol and family violence
- Policies that target reductions in alcohol consumption and availability may be effective as family violence interventions

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