

Recurrent intentional injury among youth: A chronic condition



Emergency
Department
Violence
Intervention
Program



UNIVERSITY
OF MANITOBA

Saila Parveen and Carolyn Snider
University of Manitoba

Youth violence in Canada

- Homicide is 4th most common cause of death among youth in Canada
- In Manitoba, the province with the highest homicide rate, it is especially of concern:
 - In 2011, $\sim\frac{1}{4}$ of homicide victims and $\sim\frac{1}{2}$ of the accused involved youth.

Objective

- To determine the pattern of repeat visits of youth who visit the Health Sciences Centre (HSC) ED in Winnipeg with injuries due to interpersonal violence.

Methodology

- Retrospective **chart review** of youth who visited the Emergency Department (ED) of the Health Sciences Center (HSC) in Winnipeg from **June to September, 2011**
- **Recurrent intentional injury (RII)** = any repeat visits to the ED with an injury due to violence in the year prior and/or post to the index injury visit.

Methodology

- **Inclusion criteria** for this study were patients between the ages of 10 and 24 years who visited the ED for any assault related injury like penetrating trauma, gunshot or stab wound.
- The study **did not include patients injured from domestic violence, self-harm, sexual assault or child abuse**
- This study was approved by the Research Ethics Board of University of Manitoba.

Data Collection

- Master database of anonymous patient electronic triage records
- Electronic Records reviewed by 2 investigators
- Full Charts reviewed by 1 investigator
- A **standardized chart abstraction form** was used to collect information on demographics, repetition pattern and nature of injury
- Eligible cases were analyzed using MS Access and SPSS, and 95% confidence intervals (CIs) were used for all point estimates.

Results

- Master electronic review - 2460 cases
- Full Chart Review for eligibility – 470 cases
- Eligible – 352 cases
 - 283 (80%) from Adult ED
 - 69 (20%) from Children's ED

Results: Demographics

Demographics	Estimate	C.I.
Sex		
Male	247 (70%)	65.21% to 74.79%
Female	105 (30%)	25.21% to 34.79%
Age group		
>10-15	41 (12%)	8.61% to 15.39%
>15-24	311 (88%)	84.61% to 91.39%
Average age	19.18	

Results: Disposition Profile

Characteristics	Estimate	C.I.
Disposition Characteristics		
Discharged	259 (73.58%)	68.97% to 78.19%
Admitted	54 (15.34%)	11.58% to 19.1%
LWBS/LAMA	37 (10.51%)	7.31% to 13.71%
Average length of stay (in days)	7.92 (longest 104 days)	

Results: Weapon Use

Characteristics	Estimate	C.I.
Weapon used		
Yes	90 (26%)	21.42% to 30.58%
No	213 (61%)	55.9% to 66.1%
Unknown	49 (14%)	10.38% to 17.62%
Weapon type		
Gun	6 (7%)	4.33% to 9.67%
Knives or sharp object	32 (36%)	30.99% to 41.01%
Blunt object	42 (41%)	35.86% to 46.14%
Not sure of the weapon	8 (9%)	6.01% to 11.99%

Result: Recurrent Intentional Injury

- 18% had ≥ 1 visit for injury due to violence in prior year (CI: 13.99% to 22.01%)
- 19% had ≥ 1 visit for injury due to violence in post year (CI: 14.99% to 23.01%)
- 6% had visits for injury due to violence in both the prior and post year. (CI: 3.52% to 8.48%)

Discussion

- High Rate of Repeat injuries due to violence
- Most cases receive their only care in the emergency department

Interventions need to be targeted at these individuals who are at high risk of repeat injury.

Limitations

- The study is dictated by previously screened information that precluded subjects' socio-economic and personal attributes. This led to not including important confounding factors such as ethnicity, household income and education in the study that may have explained the observed patterns of repeated trauma more effectively.

For more information on



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Dr. Carolyn Snider

Scientist, The Manitoba Institute of Child Health

Assistant Professor, Department of
Emergency Medicine University of Manitoba

656A-715 McDermot Ave, Winnipeg MB, R3E 3P4

Email: cs

Phone: 2



Website: <http://www.edvip.ca/>