



HEALTH PROBLEMS EXPERIENCED BY YOUTH ENGAGED IN VIOLENT BEHAVIOR

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On behalf of many international colleagues:



Violence and Injuries Focus Group
Health Behaviour in School-Aged Children



Aims

- To provide cross-national estimates of the prevalence of violence among children aged 11-15 years
 - To examine combined health effects of physical fighting and weapon carrying
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Background

- Youth violence:
 - US Statistics
 - European Statistics
- Indicators:
 - **physical fighting** and **weapon carrying**
 - Highly correlated behaviors

Theory

- We started with a simple concept
- Next, recognized the need for theory
 - Development in context:
 - *Do violent risk behaviours have cumulative effects on adolescent health?*
 - *Do risks interact with different contexts?*

Possible Health Outcomes

- **Medically treated injuries:**
 - Sentinel physical outcome
- **Emotional health:**
 - Sentinel psychological outcome




Hypotheses

- Weapon carrying and physical fighting have health effects
- Existence of high risk group:
 - Youth engaged in both forms of violence
 - Interactive effects
 - Within time - multiplicative
 - By geography



Sample


- 20,125 adolescents
 - 11-15 years old
 - 5 countries:
 - Belgium, Israel, USA, Canada, Macedonia
 - N of 2492 to 5746
 - Even gender split
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Measures: Violence

- Frequency of physical fights during past 12 months
 - 3+ *Frequent*
 - 1-2 *Infrequent*
 - 0 *None*
- Weapon carrying in past 30 days
 - Ever
 - Never



Statistical analysis

- Prevalence estimates by gender
 - Logistic regression
 - Students nested within schools
 - Multi-level approach - clustering
 - Bivariate and adjusted models
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Demographics

	<i>Bel</i>	<i>Can</i>	<i>Isr</i>	<i>Mac</i>	<i>USA</i>	<i>Total</i>
N	2492	5746	4235	5086	2566	20125
Male %	52	47	39	50	47	47
Mean Age	14.5	13.8	14.1	13.6	14.4	14.0

Physical Fighting

Boys	Percentage	
	Min (USA)	Max (Belgium-Fr)
Infrequent	33	37
Frequent	13	26

Physical Fighting

Girls	Percentage	
	Min (Israel)	Max (USA)
Infrequent	12	33
Frequent	3	13

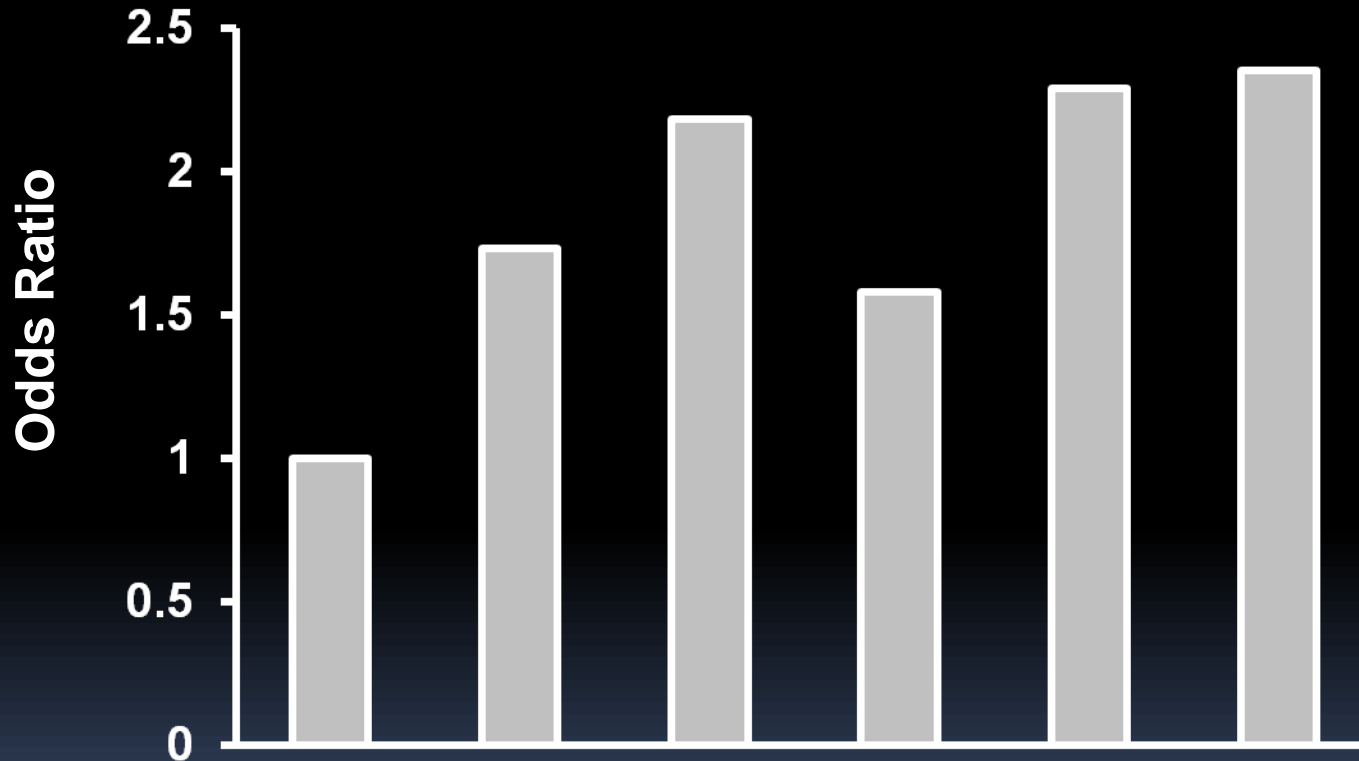
Weapon Carrying

	Percentage	
	Min (Belgium-Fr)	Max (USA)
Boys	11	22
Girls	2	7

Both Violence Indicators

	Percentage	
	Min	Max
Boys	5	8
Girls	1	2

Violence and Injury Canadian Boys



Weapons
Fighting

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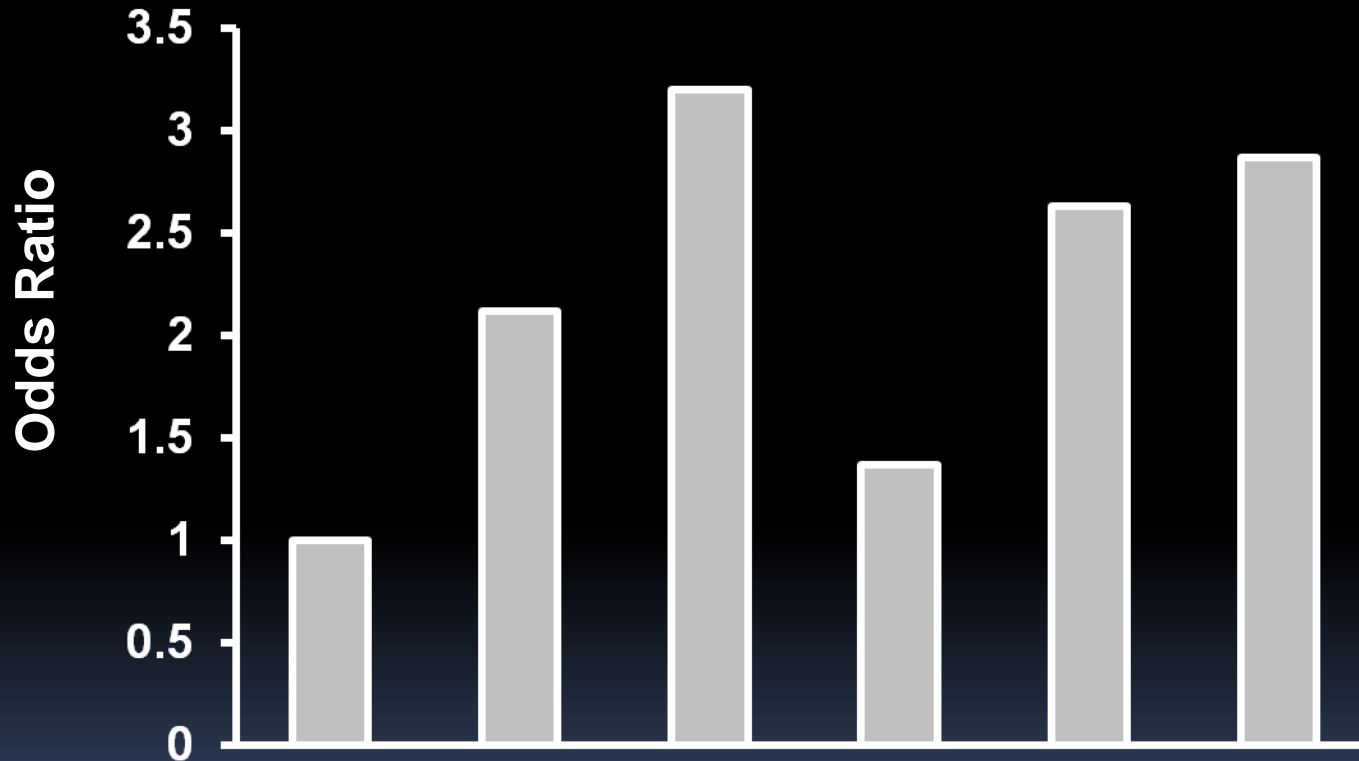
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Violence and Injury Israeli Boys



Weapons
Fighting

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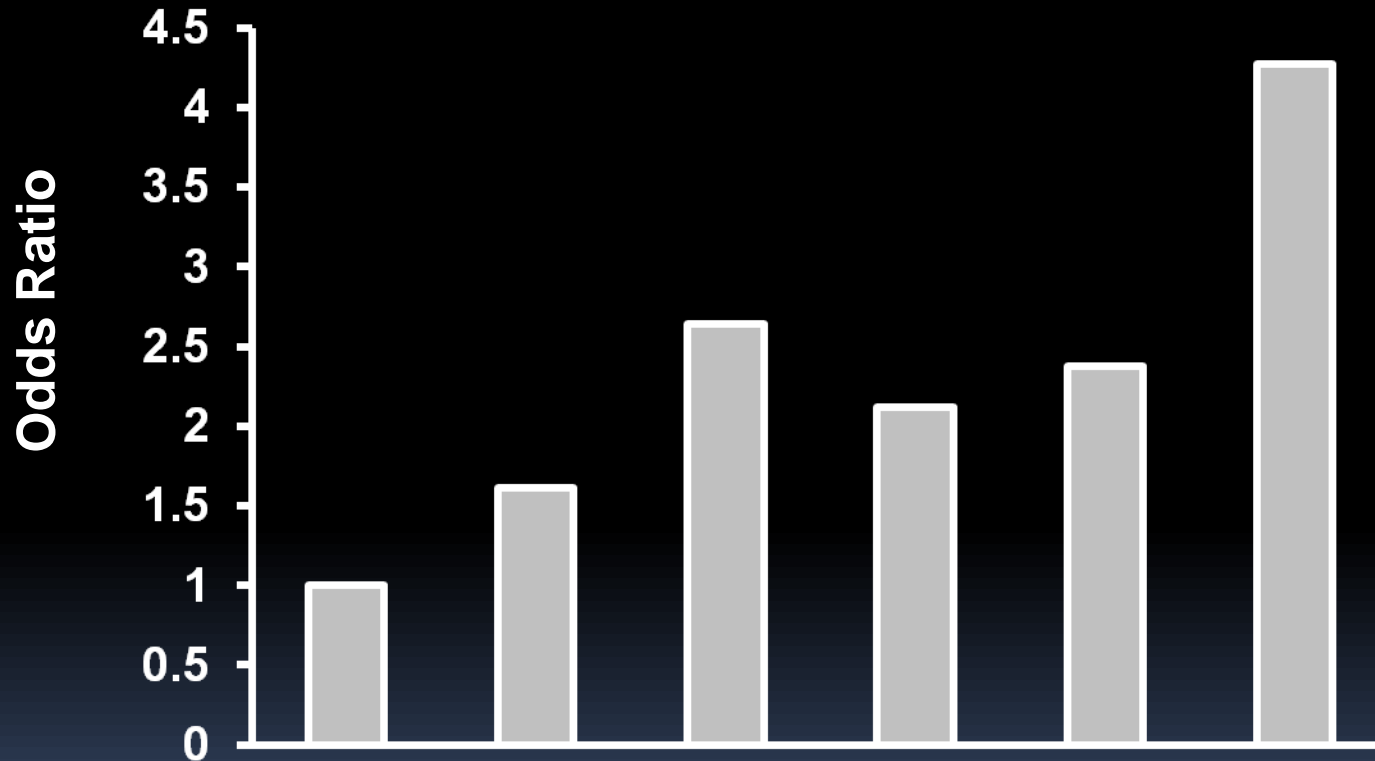
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Violence and Emotional Problems: Canadian Boys



Weapons
Fighting

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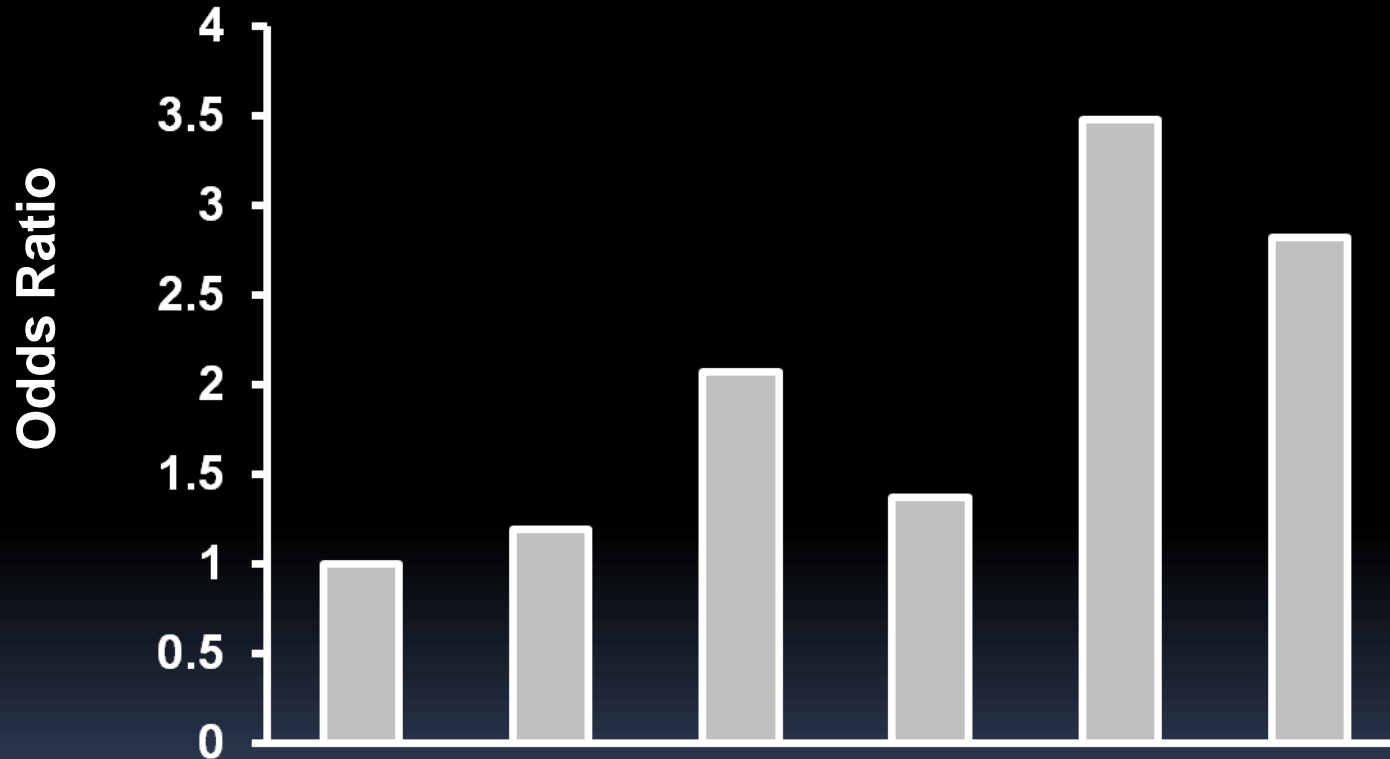
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Violence and Emotional Problems: Israeli Boys



Weapons
Fighting

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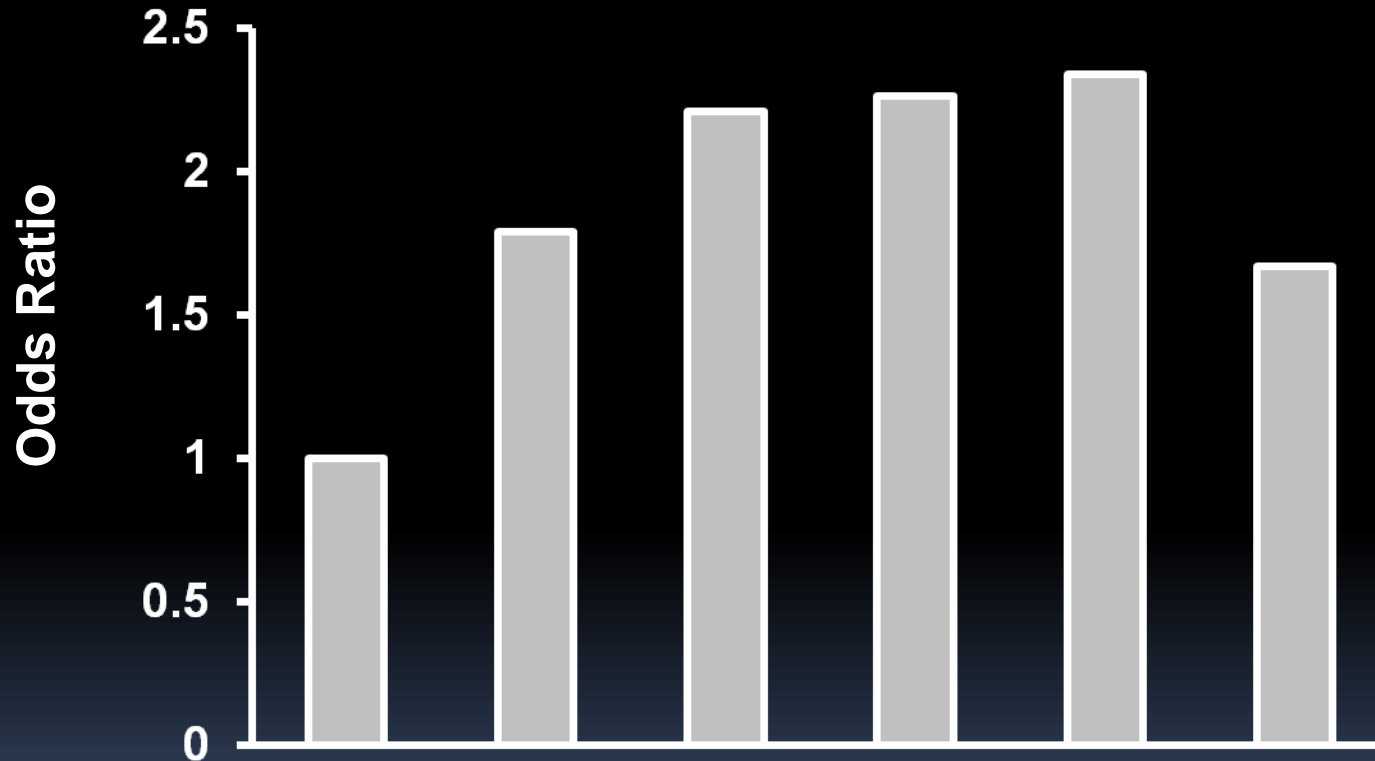
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Violence and Injury Canadian Girls



Weapons
Fighting

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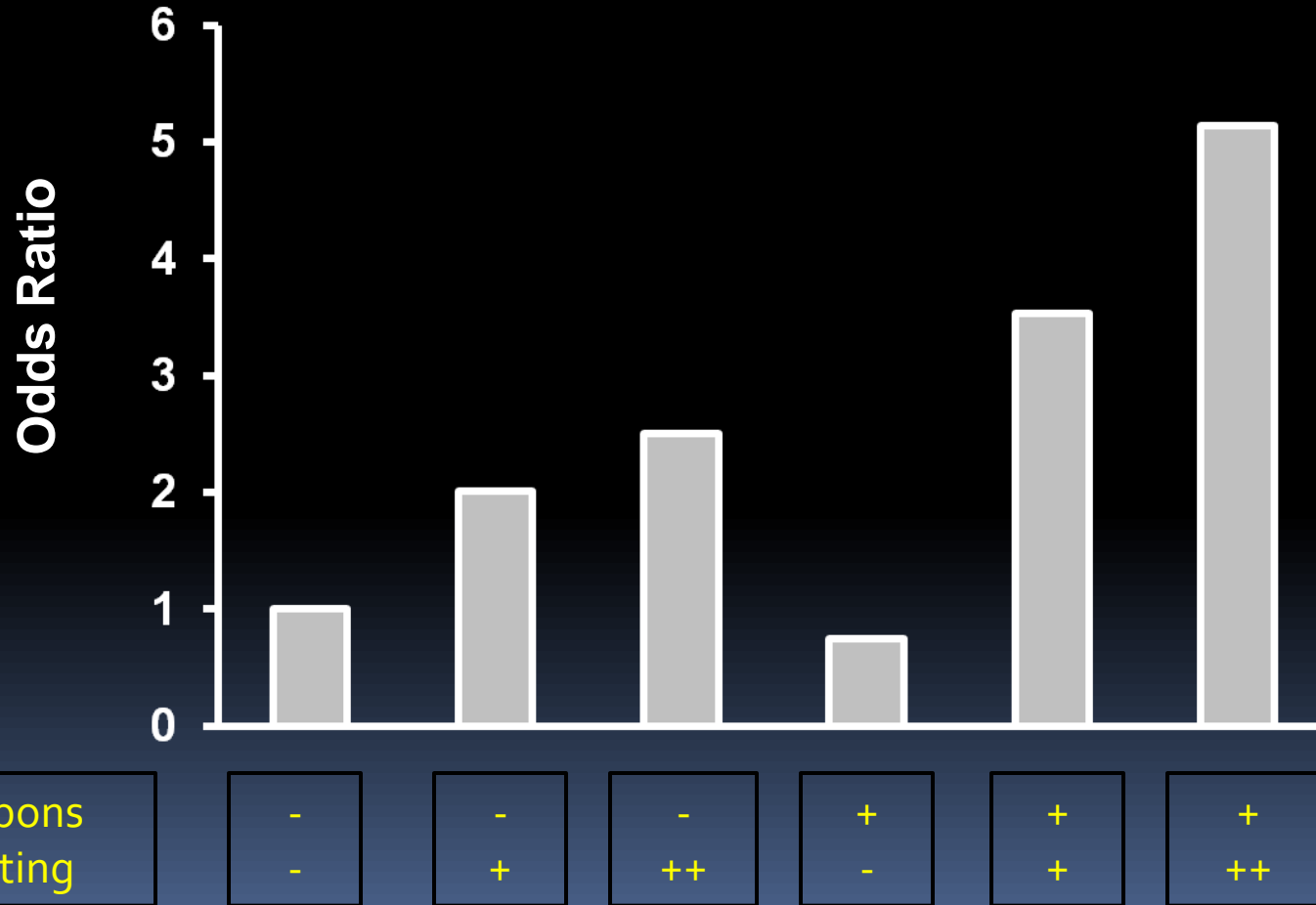
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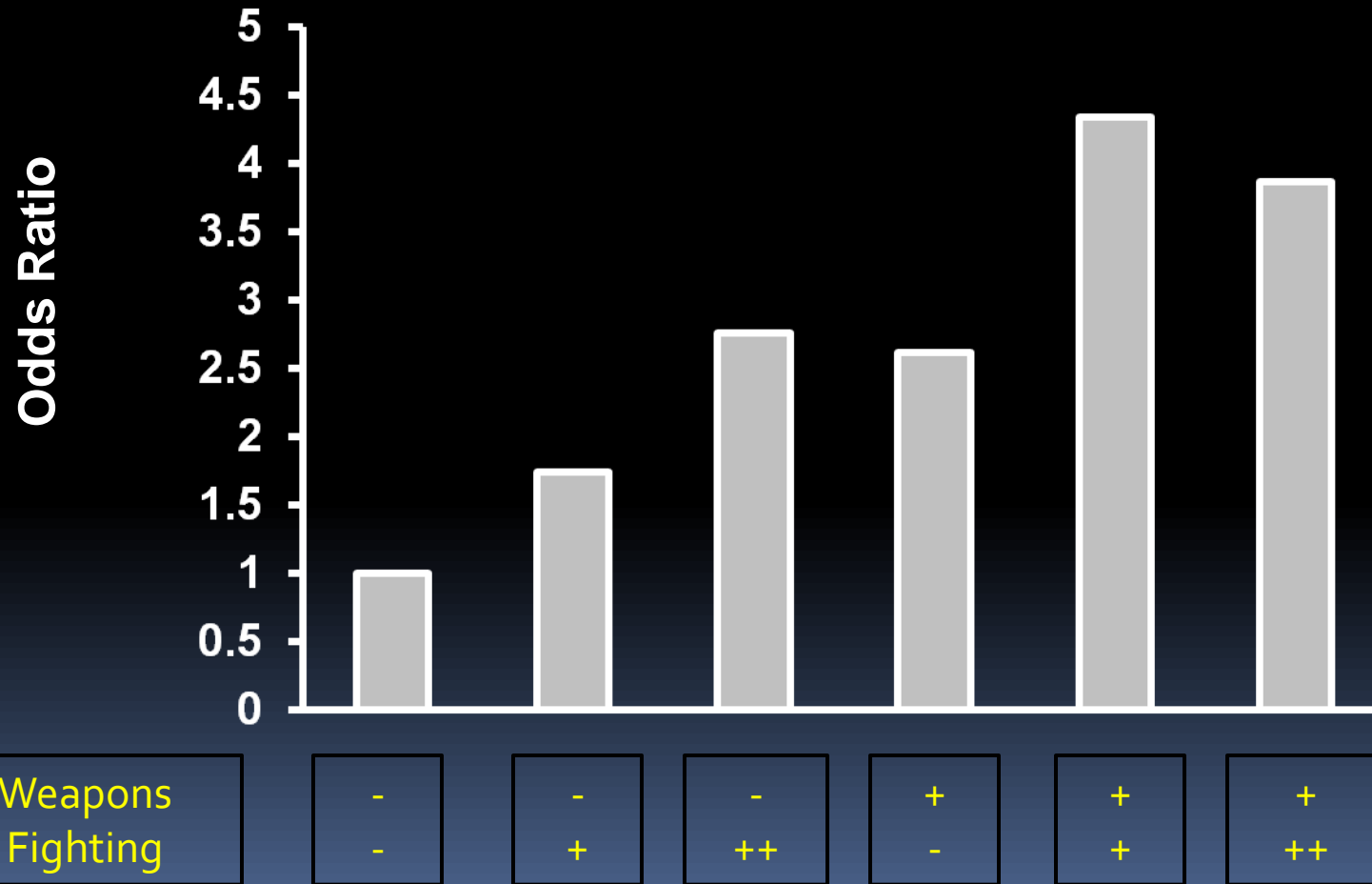
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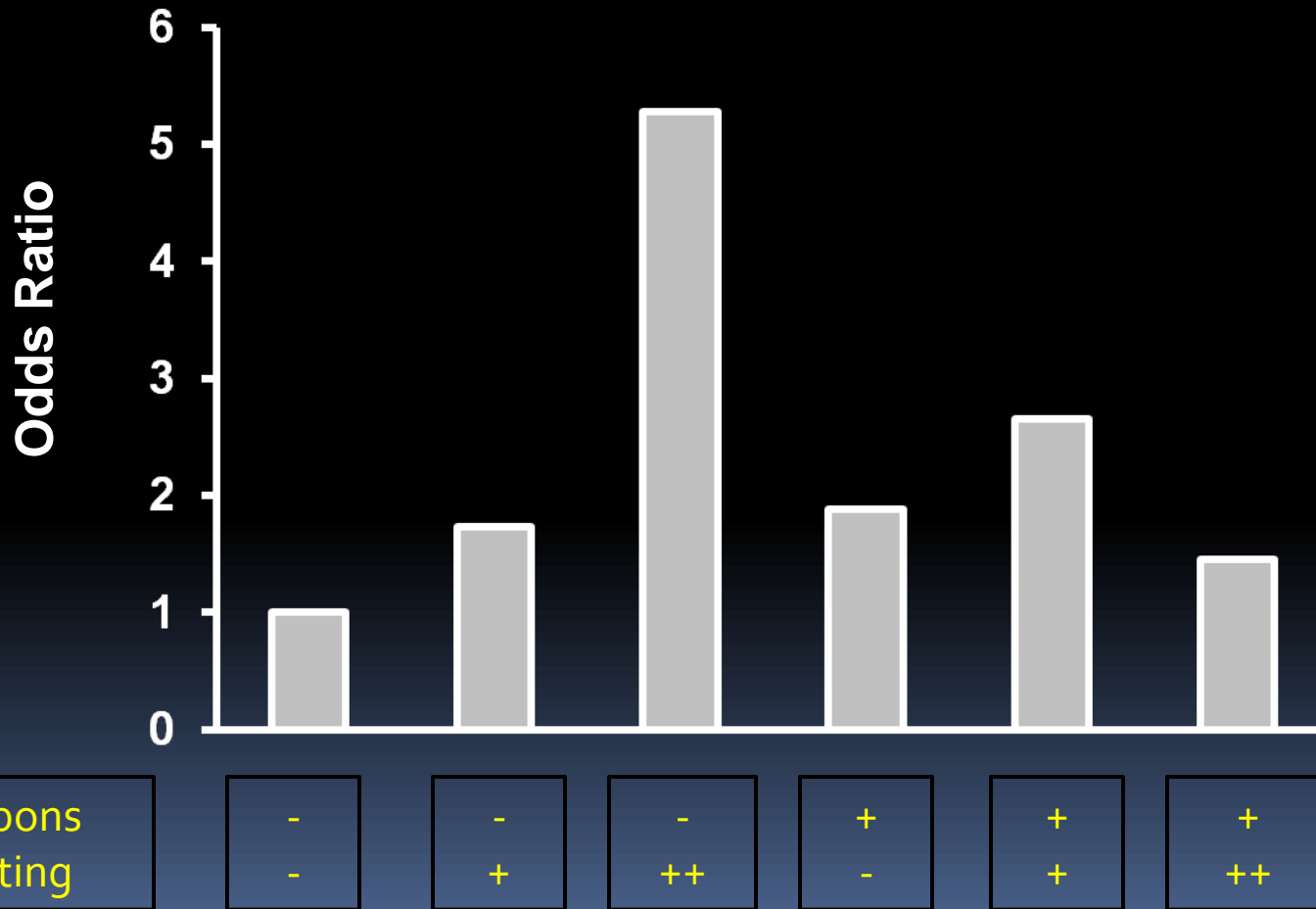
Violence and Injury Israeli Girls



Violence and Emotional Problems: Canadian Girls




Violence and Emotional Problems: Israeli Girls





Major points

- violence is common
 - normative behavior in some cultures
 - many forms captured by HBSC
 - potential determinant of health
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Major points


- Significant gender differences
 - boys more involved in violence
 - girls report more emotional symptoms
- Both forms of violence related to injuries and emotional health symptoms

Combinations of indicators

- Small group involved in both physical fighting and weapon carrying
 - (5.2-8.3% boys; 0.6-2.2% girls)
- No consistent interactive pattern
 - Multiplicative risks not observed
 - Combination can even be protective




Limitations

- Cross-sectional analysis
 - Limited ability to understand cultural context behind differences
 - Definitional issues
 - Reasons for violence
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Strengths

- Large scale cross-country survey
 - Emphasizes relationship between violence and health outcomes
 - Places violence within a theoretical framework
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Going back to theory

- It is clear that violent risk behaviours cluster together
- Risks of violence are not necessarily additive or multiplicative within time
- Risk does appear to interact with context (country)



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Thank you