Youth Violence: Prevalence, Consequences & Risk factors

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6th Milestones of a Global Campaign for Violence Prevention, 13 Nov 2013
YOUTH VIOLENCE: DEFINITIONS

• Youth: 10-29 years

• Interpersonal, Community Violence:
  ➢ Fighting
  ➢ Assault
  ➢ Robbery
  ➢ Rape
  ➢ Homicide
WHY FOCUS ON YOUTH?

Transition from childhood – adulthood

- Reduced adult supervision – increased peer influence
- Physical, cognitive, emotional, and social change
- Brain maturation continues until early 20’s
- Risk-taking & stimulation seeking behaviours
PREVALENCE Global deaths in 2010

456,000 Homicides Worldwide in 2010

- Victim Age (Years):
  - 0-9: 5%
  - 10-29: 42%
  - 30-49: 37%
  - 50+: 16%

- Victim Sex:
  - Male: 81%
  - Female: 19%

86% Victims in Low- and Middle-Income Countries

PREVALENCE Non-lethal violent victimisation

Hospitalisations for assaults

Age (Years)
- 0-9
- 10-29
- 30-44
- 45-59
- 60-74
- 75+

Hospitalisations per 100,000

- Croatia
- Czech Republic
- Finland
- Slovenia
- United Kingdom

PREVALENCE Perpetration peaks in late adolescence

All Violent Crimes by Age, United States, 2010

PREVALENCE Perpetration - Types of violence

Violent Crimes in the United States, 2010

- Simple assault
- Aggravated assault
- Robbery
- Forcible rape
- Murder/ non-negligent manslaughter

Self Reported Serious Violence, Males in Pittsburgh, United States

Source: Pittsburgh Youth Study, Oldest Cohort
Loeber et al. (2008) Violence and Serious Theft

PREVALENCE Perpetration - Cumulative prevalence

42%
PREVALENCE Frequent fighting age 11 years

Source: HBSC Study; Curie et al (2012)

Social Determinants of Health and Well-being among Young People
CONSEQUENCES Health costs to individual victims

Short-term
- Physical injuries
- Emotional distress
  - Post traumatic stress disorder
  - Anxiety
  - Depression
- Suicidal behaviour
- Behavioural problems
- Substance use

Long-term
- Disability
- Mental illness
- Crime
- Substance dependence
CONSEQUENCES Mental health problems

Effects of Community Violence on Mental Health
Meta-analysis of 114 Studies

- PTSD
- Emotional
- Behavioural

Effect Size (d)

Fowler et al (2009) *Dev Psychopathol*
CONSEQUENCES Mental health problems

- PTSD
- Emotional
- Behavioural

**Effect Size (d)**

- **Child**
- **Adolescent**

Fowler et al (2009) *Dev Psychopathol*
CONSEQUENCES Processes: Mental health

Victimisation

Hyperarousal, reduced trust, social isolation

Increased vulnerability

Mental distress
CONSEQUENCES Processes: Antisocial behaviour

- Victimisation
- Bio-psycho-social effects
- Environment selection
- Violent & Antisocial behaviour

- Victimisation
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CONSEQUENCES Global healthy life years lost

Worldwide DALYS for Interpersonal Violence, 2010

Violence = 3rd leading cause of DALYS
Gore et al (2011) *Lancet*

Source: WHO *Global Burden of Disease Study 2010*
CONSEQUENCES Total costs of violence

Material Costs
- Healthcare
- Security
- Legal and criminal justice costs
- Lost economic productivity

Quality of Life
- Victim pain, fear & suffering
- Reduced social cohesion

CONSEQUENCES Material costs of violence as % GDP

Latin America 14.2% GDP = US$168 billion
[Health, Lost goods, Security, Justice, Lost productivity & consumption]

- 12.3% Mexico
- 24.9% El Salvador
- 24.7% Colombia
- 10.5% Brazil
- 11.8% Venezuela
- 5.1% Peru

RISK FACTORS Definition

- Risk factors predict increased *probability* of violence
RISK FACTORS Ecological model

RISK FACTORS Genes and environment

Contribution of Genes and Environment to Antisocial Behaviour

- Genetic: 41%
- Environment (shared): 16%
- Environment (nonshared): 43%

Meta-analysis of 51 Twin & Adoption Studies

Rhee & Waldman (2002) Psych Bull
### RISK FACTORS Individual predictors

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Nonviolent (%)</th>
<th>Violent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fetal alcohol exposure</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Fetal tobacco exposure</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>Attention Deficit-Hyperactivity</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td>Depressed mood</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Childhood aggression</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>Persistent drug use</td>
<td>15</td>
<td>25</td>
</tr>
</tbody>
</table>

Source: Pittsburgh Youth Study
Loeber et al. (2005) *J Consult Clin Psych*
RISK FACTORS Parenting & family predictors

- Poor supervision
- Poor communication
- Physical punishment
- Child abuse
- Familial Criminality
- Young mother
- Low socioeconomic status

Source: Pittsburgh Youth Study
Loeber et al. (2005) *J Consult Clin Psych*
RISK FACTORS  Peer & school predictors

- Peer delinquency
- Peer substance use
- Gang membership
- Low academic achievement
- Low school motivation

Source: Pittsburgh Youth Study
Loeber et al. (2005) *J Consult Clin Psych*
RISK FACTORS

Community predictors

- Deprived neighbourhoods
- Delinquent peers
- Gangs
- Families
- Parenting
- Developing child

Source: Pittsburgh Youth Study
Loeber et al. (2005) *J Consult Clin Psych*
RISK FACTORS Cumulative effects

Age 13-16 factors predicting violence age 20-25

Source: Pittsburgh Youth Study, Oldest Cohort
Loeber et al. (2008) Violence and Serious Theft
RISK FACTORS Which risk factors are causal?

- Genetic influence
- Harsh discipline
- Other environments
- Child antisocial behaviour

<table>
<thead>
<tr>
<th>Risk factor</th>
<th>Evidence for Causal Effects on Antisocial Behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking during pregnancy</td>
<td>No</td>
</tr>
<tr>
<td>Harsh, coercive discipline</td>
<td>Yes, but also reverse causation &amp; familial confounding</td>
</tr>
<tr>
<td>Maltreatment</td>
<td>Yes, but also familial confounding</td>
</tr>
<tr>
<td>Divorce</td>
<td>Yes, but also familial confounding</td>
</tr>
<tr>
<td>Adolescent motherhood</td>
<td>Yes, but also familial confounding</td>
</tr>
<tr>
<td>Parental depression</td>
<td>Yes mothers, no fathers, some familial confounding</td>
</tr>
<tr>
<td>Parental antisocial behaviour</td>
<td>Yes, but also genetic effects</td>
</tr>
<tr>
<td>Parental alcohol use</td>
<td>No</td>
</tr>
<tr>
<td>Peer deviance</td>
<td>Yes, but also selection effects</td>
</tr>
<tr>
<td>Family poverty</td>
<td>Yes, but also familial confounding</td>
</tr>
<tr>
<td>Neighbourhood disadvantage</td>
<td>No</td>
</tr>
</tbody>
</table>
RISK FACTORS 37 Major longitudinal studies of crime

Farrington & Welsh (2007) Saving Children From a Life of Crime
Risk factors for Youth Violence in Brazil
Systematic Review 9 Studies

- Male sex
- Mental health problems
- Smoking tobacco
- Drinking alcohol
- Using drugs
- No religion
- Not studying (age 15-19)
- Many young siblings (males only)
- Low family income
RISK FACTORS Macro-level predictors

Strongest Predictors of National Homicide Rates
Meta-analysis of 54 Studies

1. Latin American nation
2. Income inequality
3. Non-Eastern nation
4. Lack of protection from market: Low “Decommodification”
5. Divorce rate
6. Population growth

Nivette (2011) *Homicide Studies*
CONCLUSIONS

1. Young males high risk - victims and perpetrators
2. Enormous health, social, and economic costs
3. Largest burden in low- middle-income countries
4. Evidence on causes mainly from high-income countries
5. Cumulation and interaction of risk factors predict from young age
   • Individual biology, psychology and behaviour
   • Parenting in early years
   • Peer and community factors in adolescence
   • Societal factors through development