Long-term effects of school bullying: Implications for health and crime prevention initiatives

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Friday, May 22, 2015
World Congress on School Violence, Lima, Peru
Structure of the Presentation

(A) Tangible and Intangible costs of problem behaviour

(B) Long-term link of school bullying (perpetration/victimisation) with problems in adult life
   - What does this link actually mean?
   - What are the implications?

(C) Effectiveness of bullying prevention programmes
   - What are the most effective elements?
   - What have we learned so far? What needs to be learned?

(D) Protective factors interrupting this long-term link
PART A:

Financial costs of antisocial and criminal behaviour
Antisocial behaviour and crime is expensive

Data from the UK
Cumulative costs of public services used through to adulthood (≈28) by 10-year olds with varying levels of antisocial behaviour (Scott et al., 2001)

- No problems in childhood: Mean individual cost: £7423
- Conduct problems in childhood: Mean individual cost: £24,324
- Conduct Disorder in childhood: Mean individual cost: £70,019
PART B:

Long-term ‘outcomes’ of school bullies and victims
Part of normal development? Or does it have detrimental effects?

Mail Online
Bullied girl, 15, dies after leaping from bridge on to busy road

By Luke Galtfield
Last updated at 6:55 PM on 18th September 2009

A bullied teenager has jumped from a bridge to her death on a dual carriageway.

Holly Grogan fell 40ft on to the A40 and where she suffered multiple injuries.

Tributes left on social networking sites yesterday suggest the 15-year-old, who attended a private Catholic school, had been targeted by bullies.

One comment read: "At least you [sic] safe now. All those people who hurt you babe will get what's coming to them."
Indications from previous research...

• **Short-term effects:**
  - depressive symptomatology (Bosworth et al, 1999; Van der Wal et al, 2003)
  - increased risk for suicidal ideation and self-injurious behaviour (Kaltiala-Heino et al, 1999)
  - eating disorders (Kaltiala-Heino et al, 2000)

• **Long-term effects:**
  - later offending (Farrington, 1993; Sourander et al, 2006; Losel, 2008)
  - bullied children: difficulties in trust/intimacy in opposite-sex and friendly relationships in adulthood (Gilmartin, 1987; Dietz, 1994)
Systematic Review

- Extensive searches in
- **19 electronic databases**
- **63 relevant journals**
- ‘grey literature’ (ETHOS, ProQuest)
- Screening and coding of 661 reports
- Emailed the principal investigators of a large number of prospective longitudinal studies (received results from **24 separate research teams**)

• Instructions to Lead Investigators of Longitudinal Studies:
  - The strength of the relationship between bullying and later outcomes
  - The strength of this relationship after controlling for earlier risk factors (not a confounded relationship)

• Particular strength
  - We contacted investigators of major longitudinal surveys
  - Highlighted that all findings are important irrespective of statistical significance
Meta-analysis

- Meta-analysis: bring together and ‘re-analyse’ data from existing studies
- Helps researchers avoid a ‘vote-counting’ approach
- Effect size = measure of association between two variables
Measure of Effect Size (Odds Ratio)

Bullying Perpetration versus Offending:

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<tr>
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<td>YES BULLYING</td>
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‘Experimental Group’: Bullies
‘Control Group’: Non-Bullies

Odds of Offending [in treated group]: \( \frac{76}{1352} \approx 0.0562 \)
Odds of Offending [in control group]: \( \frac{14}{1113} \approx 0.0125 \)

\( OR = \text{Ratio of the two odds} \Rightarrow OR = \frac{0.0562}{0.0125} \approx 4.49 \)

• \( OR = 3 \Rightarrow \text{Bullies are 3 time more likely to have committed crime in adult life} \)
Adverse outcomes of school bullying

**General Offending:**
- Adjusted OR = 1.89 (95% CI: 1.60 – 2.23)  
  [29 longitudinal studies]

**Violent Offending:**
- Adjusted OR = 2.04 (95% CI: 1.69 – 2.45)  
  [29 longitudinal studies]

**Drug Use:**
- Adjusted OR = 1.49 (95% CI: 1.21 – 1.84)  
  [18 longitudinal studies]

**Depression:**
- Adjusted OR = 1.71 (95% CI: 1.49 – 1.96)  
- [49 longitudinal studies]
Report prepared for Brâ by David P. Farrington, Friedrich Lösel, Maria M. Ttofi and Nikos Theodorakis

School Bullying, Depression and Offending Behaviour Later in Life
An Updated Systematic Review of Longitudinal Studies

brâ
National Council for Crime Prevention
Policy Implications

• Bullies and victims are more likely to face adverse problems in adult life

• Need to intervene early and support both groups

• How can we interrupt this continuity from bullying to later adverse outcomes?

• Implementation of effective anti-bullying programmes!
PART C:

Effectiveness of bullying prevention programmes
Comparison with Previous Reviews

- Screened 622 papers (vs. approximately 300)
- Searched in 18 databases (vs. 2 – 7)
- Included 89 evaluation reports (vs. 14 – 26)
Results of Searches

- Hand-searched 35 journals from 1983 to 2009; same searches in 18 databases

- 622 published/unpublished articles, books and book chapters, conference presentations, PhD or Masters Theses, Government Reports

- 89 evaluation reports of 53 different implementations of anti-bullying programmes (44 out of 53 usable)
44 evaluation reports in meta-analysis

**Randomized Experiments:**
- 14 evaluations

**Before-After, Experimental-Control Comparisons:**
- 17 evaluations

**Other Experimental-Control Comparisons:**
- 4 evaluations

**Age-Cohort Designs:**
- 9 evaluations
# Example of Odds Ratio

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<td>80</td>
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<td>74</td>
<td>26</td>
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\[
OR = \frac{26/74}{20/80} = \frac{(80*26)}{(74*20)} = 1.4
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Effect Sizes for Bullying and Victimization

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Overall findings (44 evaluations)

- Reductions in bullying by 20–23%
  - (Bullying OR = 1.37)

- Reductions in victimization by 17–20%
  - (Victimization OR = 1.29)
What works best with whom?

- Overall, anti-bullying programs are effective
- However, in what circumstances do they work best?
  - What features of the programme?
  - For what age of children?
  - In what countries?
  - Based on what research designs?
  - Based on what implementation components?
Elements of Intervention Programmes

• 1 = whole school anti-bullying policy
• 2 = classroom rules
• 3 = school conferences providing information about bullying to students
• 4 = curriculum materials
• 5 = classroom management
• 6 = cooperative group work among experts [e.g. among teachers, counsellors and interns]
• 7 = work with bullies
• 8 = work with victims
• 9 = work with peers [e.g. peer mediation; peer mentoring; peer group pressure as bystanders]
• 10 = information for teachers
Elements of Intervention Programmes

- 11 = information for parents
- 12 = increased playground supervision
- 13 = disciplinary methods
- 14 = non-punitive methods [e.g. ‘Pikas’ or ‘No Blame Approach’]
- 15 = restorative justice approaches
- 16 = school tribunals/school bully courts
- 17 = teacher training
- 18 = parent meetings
- 19 = videos
- 20 = virtual reality environments or computer games
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Elements associated with reductions in bullying and victimization

- Duration and intensity of the programme
- Parent training
- Co-operative group work among different professional groups
- Age of the children
- Publication date
- Country of implementation
Implications for policy (1)

- Many (but not all) school-based anti-bullying programmes are effective

- High quality intervention research on school bullying should be encouraged.

- Lessons to be learnt from current successful programmes

- New anti-bullying programmes should be designed and tested based on effective intervention components
Implications for policy (2)

- **Dose-response relationship** between number of programme components and effect size [Olweus, 2005] => programmes should be intensive

- **Duration & Intensity** of the programme for teachers and children

- **Target the wider community**/move beyond school efforts (parent meetings and co-operative group work among experts)
Implications for policy (3)

• Attention not only to the nature and quality of the programme, but also to **implementation issues** [Fekkes et al., 2006; Smith, 1997]

• ‘Older’ implementations (implemented before 2003) more successful **BUT** ...

• Programmes in Europe and with older children more successful

• More research is needed on developing and testing **gender-specific & age-specific programmes** [e.g. Kiva: disciplinary-younger VS restorative justice-older]
PART D

Protective factors and school bullying
Protective Factors Interrupting the Continuity From School Bullying to Later Internalizing and Externalizing Problems: A Systematic Review of Prospective Longitudinal Studies

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A systematic review is presented, based on prospective longitudinal studies, on protective factors that interrupt the continuity from bullying perpetration at school to externalizing problem behaviors later in life; and from bullying victimization to later internalizing problems. Some common factors were established, which seem to interrupt the continuity from school bullying perpetration and victimization to later maladjustment problems. These included having
Protective Factors and School Bullying

• sometimes removal of childhood risks is not feasible (e.g. Cook et al. 2010)

• more attention needs to be paid to the positive aspects of development and not just the negative aspects (Lösel & Farrington, 2012)

• In any case, even in high-risk groups more than half of the children develop relatively well and a majority of serious offenders desist over time (Moffitt et al., 2002; Sampson & Laub, 2003)
Summary of Results

- Some common protective factors were established for both perpetrators and victims:
  - Having a good performance at school
  - Having good social skills
  - Coming from a positive family environment
  - Being attached to parents
  - Having pro-social friends.
  - Findings are consistent with the wider resilience literature
“... one of the principal challenges of a risk-focused approach is that it resulted in the proliferation of separate problem-specific programs, funded by independent agencies supporting work in each risk area, and disseminated through different publication venues.

.... rather than emphasizing the identification of shared risk, protective, and promotive factors” (Guerra & Bradshaw, 2008)
Identification of risk groups

• Should analyses focus on discrete groups of people at risk (e.g. ‘bullies’) or based on total risk scores?
• No clear answer in this. Studies have used:
  ➢ Either one risk factor (e.g. kandel et al., 1988)
  ➢ Up to 4 factors (e.g. Werner & Smith, 1982)
  ➢ A risk index based on 70 risk factors (Losel & Liesener, 1994)
• Both approaches are valid depending on the target of the intervention
For more information:

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