Effects of Bullying on the Developing Person

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Scope of the Problem

• 20% of children and youth have serious mental health (MH) and learning problems
• 10% of children and youth have problems that are chronic and lead to significant impairment in school, home and in the community
• Only 1 in 6 of those with MH problems receive services, those services are often not evidence-based (Evidence-Practice Gap)
• Parents, teachers and primary care providers often do not recognize MH problems in children and youth

Long-Term Outcome of MH

• MH problems account for at least 20% of the burden of physical illness and disability in adults
• Of the 10 leading causes of disability in adulthood, 7 are MH issues
• MH, educational under-achievement and physical problems occur together
• 50% of all adult MH disorders begin before 15 years of age

Mental Health and Violence against Children


• “...persistent social acceptance of some types of violence against children...”
• “...corporal punishment and other forms of cruel or degrading punishment, bullying and sexual harassment, and a range of violent traditional practices may be perceived as normal, particularly when no lasting visible physical injury results."

• Peer rejection and victimization has a significant negative impact
• Research points to the fact that for many, peer problems cause MH issues
Bullying

- A person is being bullied if he or she is exposed repeatedly and over time, to negative actions on the part of one or more persons.

Bullying takes many forms

- Also called harassment and includes...
  - Physical
  - Verbal
  - Social
  - Cyber
  - Racial
  - Sexual

Prevalence: Ontario

N=16,879 students in grades 4 to 12

Homophobic Bullying

- Bullied Others using Homophobic Taunting
  - Boys
  - Girls

- Bullying and homophobia perpetration ($r = .61$)

“Better Dead than Gay”

- Gay youth are 4 times more likely to attempt suicide than straight youth (Garofalo, et al., 1999; Howard, 1998)
Long term consequences

- academic difficulties
- school truancy/avoidance
- increased absenteeism
- somatic complaints
- stress-related illness
- physical health problems
- low self-esteem
- depression
- social withdrawal/isolation
- social anxiety
- loneliness
- suicide
- aggressive behaviour


• Longitudinal studies show causal link between bullying and mental health issues.

• Why this level of impairment?

The Need to Belong

- Need to belong is a fundamental human motivator
- Wired to belong

Teens

- During average week during school year
  - 1/3 of waking hours talking with peers and 8% of this time talking with adults
  - report most happy when talking with peers

Source: Pew Research Centre
Need to belong is so strong that...

- Being rejected by a deplorable, loathed group like the Klu Klux Klan is perceived as hurtful to people who are not part of, nor condone, such a group.

The priority of relationships

- Social ties are not just a luxury, but rather are essential for optimal development.
- Evidence from social deprivation...
  - Isolating people from others.

United Nation Convention Against Torture

- “Torture means any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person for such purposes as obtaining from him or a third person information or a confession, punishing him for an act he or she has committed, or intimidating or coercing a person, or for any reason based on discrimination of any kind, when such pain or suffering is inflicted by or at the instigation of or with the consent or acquiescence of a public official or other person acting in an official capacity. It does not include pain or suffering arising only from, inherent in or incidental to lawful sanctions.”

Infant Mortality

- Late 19th C to early 20th C
- ~100% of infants admitted to foundling homes died before 1st birthday.

NYC vs. Bellevue

- Issues of social deprivation best illustrated by documentary film of Mexican Foundling Homes
  - Kids resembled concentration camp victims
  - Behavior was consistent with what is seen in autism
  - Scientific community went nuts
    - Biases sample
    - Small sample size

Rene Spitz (1887-1974)

- “Infant mortality is a social disease.”
- Foundling Home Babies
  - Many died before first birthday
  - High incidence of autism behaviors

- Issues of social deprivation best illustrated by documentary film of Mexican Foundling Homes
  - Kids resembled concentration camp victims
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Harry Harlow (1905-1981)

- Interested in love
- Studied maternal deprivation

Protest → Despair → Detachment

(Hinde)

Attachment

- Continuous process
  - Parental
  - Siblings
  - Teachers
  - Peers
- Sets the stage for other social relationships
  - Prototype

Beyond Caregiver Attachment

- Juvenile monkeys thrived when raised among family and peers
  - NOT when isolated from either during infancy, especially not when isolated from peers
• Relationships are essential for optimal development.
  – Although parent-child attachment was important, for Harlow’s monkeys peer relationships were critical in order to flourish

• “...persistent social acceptance of some types of violence against children...”
• “…corporal punishment and other forms of cruel or degrading punishment, bullying and sexual harassment, and a range of violent traditional practices may be perceived as normal, particularly when no lasting visible physical injury results.”

• Studies show that people can relive and re-experience social pain more easily than physical pain and the emotions they feel are more intense and painful.
  – Chen, Williams, Fitness, Newton, 2008
• It seems that physical pain is often short lived whereas social pain can last a lifetime.

Importance of Peers
• Parents are often primary source of social/emotional support for young children, BUT as children age, peer group becomes ↑ important.
• Peers provide an important context for social-emotional and cognitive development.

Sticks and stones may break my bones but words will never hurt me.
SAYS WHO????

• Vaillancourt et al. (2010a, 2010b) suggest, understanding biological underpinnings of peer relations helps legitimize the plight of peer-abused children and youth
• Encouraging policy makers and practitioners to prioritize the reduction of school bullying
Insight from Neuroscience

• “Criticism may not be agreeable, but it is necessary. It fulfills the same function as pain in the human body. It calls attention to an unhealthy state of things”
  – Sir Winston Churchill (1874-1965)

Recent neuroimaging studies have shown that parts of the cortical physical pain network are also activated when a person is socially excluded. Physical & social pain share similar neural structures linked to evolution, which survival among mammalian species.

Divergent Pathways

Exposure to Bullying

- Poor Physical and Mental Health
- Good Physical and Mental Health

Moderated and/or Mediated
- Nature of abuse
- Social support
- Family structure
- Temperament

Biology

Influence of Life Stress on Depression: Moderation by a Polymorphism in the 5-HTT Gene

In a prospective longitudinal study of a representative birth cohort, we tested why stressful experiences lead to depression in some people but not in others. A functional polymorphism in the promoter region of the serotonin transporter (5-HTT) gene was found to moderate the influence of stressful life events on depression. Individuals with one or two copies of the short allele of the 5-HTT promoter polymorphism exhibited more depressive symptoms, diagnostic depression, and suicidality in relation to stressful life events than individuals homozygous for the long allele. This epidemiological study thus provides evidence of a gene-environment interaction, in which an individual's response to environmental insults is moderated by his or her genetic makeup.
**Serotonin Gene, Experience, and Depression: Age 26**

*Caspi et al., Science, 18 July 2003, Vol 301*

**Gene–environment interaction between peer victimization and child aggression**

"Genetic modeling showed that peer victimization is an environmentally driven variable that is unrelated to children's genetic disposition."

**Model Building (1)**

Peer Victimization → Psychosocial Maladjustment

**Model Building (2)**

Stressful Event → Depression

- Longitudinal studies have shown that peer victimization causes maladjustment which includes depression
e.g., Arseneault et al, 2006; Kim et al., 2006; Kumplainen & Rasanen, 2006; Sourander et al., 2006

- Causal link is consistent with literature on depression
e.g., Duggal et al., 2000; Goodyer et al., 1985; Kaufman, 1991; Williamson et al., 1998
• Relationship between victimization and dysregulation of the HPA axis estimated via the stress hormone cortisol. E.g., Kliewer, 2006; Knack et al., 2011; Vaillancourt et al., 2008, 2011

“Results from this natural experiment provide support for a causal effect of adverse childhood experiences on the neuroendocrine response to stress.”

• Depression also linked to HPA dysregulation—↑cortisol. E.g., Holsboer, 1995; Markopoulou et al., 2009; Stoke & Sikes, 1987; see McEwen 2003 for review.

• Link between depression and stress-related structural and functional brain changes. E.g., Horna et al., 1997; Leon-Carrion et al., 2009; Michopoulos et al., 2008

• Animal studies clearly demonstrated that excessive exposure to GCs leads to structural changes in the brain which includes neural cell death.

• Cortisol binds to GC receptors.
**Final Model**

Peer Victimization → Depression → HPA dysregulation → Disrupted Neurogenesis

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**Conclusion**

- Preventive efforts to end bullying in schools and communities must be accelerated.

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**Program for International Student Assessment (PISA)**

- **Science 3**
  - Finland, Hong-Kong – China
- **Reading 4**
  - Korea, Finland, Hong-Kong – China
- **Mathematics 7**
  - Chinese Taipei, Finland, Hong-Kong – China, Korea, Netherlands, Switzerland

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**UNICEF Report Card 7**

- The true measure of a nation’s standing is how well it attends to its children – their health and safety, their material security, their education and socialization, and their sense of being loved, valued, and included in the families and societies into which they are born.

  – Child poverty in perspective: An overview of child well-being in rich countries

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*Note: Only statistically significant modeled path coefficients are depicted. **P < .01, *P < .10, 'P < .15

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What can we do to reduce bullying?

We need to appreciate that all children are capable of bullying

– Cannot change what we don’t acknowledge

Silence is complicity

• History is replete of such examples...
  – Recent teen suicides
  – Penn State (Jerry Sandusky): Penn State’s Massive Moral Failure to Put the Most Vulnerable First Instead of Last

Bystanders

• Peers are present in over 85% of the bullying incidents
  – Yet only intervene about 11% of the time ☹️ (but in another study 25% of time 😊)
• Peers who regularly see hostile exchanges without sanction are exposed to example of aggression working
  – They see powerful individuals reinforced
  – They see that the aggressor is rarely admonished by the peer group and rarely caught by adults

Craig & Pepler, 1995, 1997; Hawkins et al., 2001; Vaillancourt et al., 2009

**STAND UP! DON’T STAND BY**

Community-University Research Alliance for the Prevention of Bullying mac-sena.ca

BUT when bystanders intervene bullying stops; almost always (and immediately). Why?

• Need to belong is a fundamental human motivator
• Wired to belong

Involves bystanders

• Peer mediation is the most promising approach to reducing bullying
  – Engages students in prosocial behaviour
  – Teaches them conflict resolution skills
  – Increases playground supervision
  – AND is evidence-based
Increase Monitoring

- Students suggest this point as well
- Places to Avoid Study

Encourage children to report bullying

- When children tell bullying ↓
  - Recall reporting obligations of Bill 157
- How?
  - Can download a letter to adults (www.prevnet.ca)
  - Create a anonymous reporting website
    - Recognizing that it will be misused so safeguards need to be in place
  - Be available; ask children about their peer relations; know their friends; and monitor as well

Work in partnership

- Bullying is not a school problem, it’s a community issue.