Perceptions of local area as predictors of injury and physical activity among school children in Ireland:
Findings from the Irish HBSC study

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Injury and physical activity

- Unintentional injury and physical inactivity together are the leading causes for disability and chronic illness in young people.
- Involvement in physical activity increases the risk for injury.
- Fear from injury may act as a barrier to active lifestyle.
Study aims

- To investigate perceptions of local area that could provide safe environment that is both associated with decreased risk for injury and increased level of participation in physical activity.

- The study is based on the Health Behaviour in School-Aged children (HBSC) data.
Health Behaviour in School Aged Children (HBSC) study

- A cross-national research study conducted in collaboration with the WHO Regional Office for Europe
- HBSC was initiated in 1982 and is conducted every 4 years. Ireland has been involved since 1998
- HBSC 2006 involves more than 180,000 children from 41 countries
The study aims to gain new insight into, and increase our understanding of young people's health and well-being, health behaviours and their social context.

The findings are used to inform and influence children’s policy and practice at national and international levels.

The target age-groups are 11, 13 and 15 year olds attending school (n=4500).
Methodology - Data

- 2006 HBSC Ireland

- N= 10,334 schoolchildren (aged 10 to 18 years) from 215 primary and post-primary schools.

- Study was carried out in May-June and Sept.-Oct. 2006
Measures

- Daily moderate-to-vigorous physical activity (MVPA);
- Two or more weekly hours of vigorous physical activity (VPA);
- Injury requiring medical treatment P12M;
- Injury during physical activity
- Severe injury by type of treatment;
- Severe injury by days of activity lose;
- All analyses were controlled for age, gender and FAS.
Findings

- MVPA: 27.6%
- VPA: 54.3%
- Injured P12M: 42.7%
- Injury requiring further treatment (of injured): 43.3%
- Lose of activity due to injury: 38.2%
Findings

- Injury among those participating in MVPA: 51.9% (p<0.001)
- Injury among those participating in VPA: 46.8% (p<0.001)
- Further treatment among those participating in MVPA: 46.6% (p<0.01)
- Further treatment among those participating in VPA: 44.0% (n.s)
Injury and physical activity in context
(Odds Ratios)

<table>
<thead>
<tr>
<th>Perception of local area</th>
<th>MVPA - daily</th>
<th>VPA - frequent</th>
<th>injury</th>
<th>Severe injury</th>
</tr>
</thead>
<tbody>
<tr>
<td>well off</td>
<td>0.99</td>
<td>1.14***</td>
<td>0.98</td>
<td>0.96</td>
</tr>
<tr>
<td>feels safe</td>
<td>1.24***</td>
<td>0.98</td>
<td>0.91*</td>
<td>0.91</td>
</tr>
<tr>
<td>good place to be in</td>
<td>0.93</td>
<td>1.08</td>
<td>0.84***</td>
<td>1.35**</td>
</tr>
<tr>
<td>safe to play</td>
<td>1.06</td>
<td>1.06</td>
<td>0.89</td>
<td>1.20</td>
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<tr>
<td>I can trust people</td>
<td>0.97</td>
<td>1.08</td>
<td>1.04</td>
<td>1.04</td>
</tr>
<tr>
<td>good places to go</td>
<td>1.40***</td>
<td>1.07</td>
<td>1.17**</td>
<td>0.90</td>
</tr>
<tr>
<td>I can ask for help</td>
<td>1.09</td>
<td>1.23***</td>
<td>1.00</td>
<td>1.10</td>
</tr>
<tr>
<td>N</td>
<td>9,074</td>
<td>9,113</td>
<td>9,153</td>
<td>3.801</td>
</tr>
</tbody>
</table>
Conclusions

- Too few adolescents are adequately active;
- A sizable proportion of children are injured every year;
- Risk for injury increases with level of physical activity;
- However, severe injuries are similar in active and non-active children;
- Safe environments could potentially increase participation in physical activity and decrease injuries.
Limitations

- The study is based on self-reported injuries;
- Measures of injury do not distinguish properly between minor and major injury;
- Exposure is not investigated, hence risk cannot be calculated;
- Types and settings for physical activity not examined;
- The study is based on perceptions of local area.
Key messages:

- Some positive perceptions of local area are associated with more PA and fewer injuries:
  
  Promote initiatives a the local area that will create a safer and a more friendly environment for children’s daily activity

- Active children are likely to be injured during PA and in sport facilities
  
  children and adolescents need to be provided with safe conditions to fully reap the health benefits of physical activity

- Physical activity related injuries are not more severe than other types of injuries
  
  the benefits of active lifestyle ‘worth the risk’ of minor injuries
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HBSC network of researchers

Schools & children
Further details available....

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