Adolescents’ experience of offline and online risks: Separate and joint propensities

Findings from *EU Kids Online*, 2014

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Adolescents’ risk behaviours

- **Increase in prevalence of risk behaviours** (WHO, 2012)
  - substance use, sexual risk, aggressive behaviour

- **50 countries: childhood mortality decreased and ‘overtaken’ by mortality in adolescence** (Viner et al., 2011)
  - reduction in communicable diseases
  - increase in risk behaviours (accidents, unintentional injuries, suicide)

- **Adolescents engaged in risk behaviours associated with the leading causes of death** (Youth risk behavior surveillance - United States, 2011)
  - alcohol, marijuana, physical fights, been bullied, attempted suicide
  - sexual risk behaviours associated with unintended pregnancies and STDs
  - similar findings in UK (cf. Health Protection Agency, Department of Health, 2011)

- **Adolescent risk behaviours are associated with negative outcomes throughout adolescence and adulthood** (Flory et al., 2004; Mirza, 2008)

- **Costs associated with adolescent risk behaviours made them key focus of public health policy initiatives internationally** (Hale & Viner, 2012)
Risks via mobile and online technologies

- Cyberbullying
- Contact with strangers
- Sexual messaging (‘sexting’)
- Pornography
- Negative user generated content
  - (hate messages, content promoting bulimia/anorexia, self-harm or drug use etc.)

Internet is 'lawless jungle too dangerous for children to use'
(The Independent, 25.8.2014)

Self-harm sites and cyberbullying: the threat to children from web’s dark side
(The Guardian, 10.3.2014)

Kids at more risk online than outside school gates
(Metro, 30.1.2012)
Is there a special internet risk factor?

- Media reports and effects
  - Public concern has been amplified by the mass media, most risks are encountered by a small minority (Vandebosch et al., 2013)
  - Media reports have contributed to a dramatic bias in views on cyberbullying (e.g., prevalence rates, cause for suicide etc.; Magid, 2011)

- Personal and psychosocial characteristics of those who are experiencing risks offline and online are mostly similar (Livingstone & Smith, 2014; Slater et al., 2004)
  - Traditional bullying predicts cyberbullying (Görzig, 2011; Kowalski, 2012)
  - Those vulnerable to grooming tend to be high risk youth with a history of prior sexual abuse (Mitchell and Ybarra, 2010)

- During the increase of access to mobile and online technologies
  - Prevalence estimates for online risks have not been rising (Livingstone & Smith, 2014)
  - Long term measures of harm to children show little or no increase (Maughan et al., 2008)
A general propensity for risks

- Those who take risks in one domain are likely to take them in others (Jessor, 1991; Carson et al., 2011; Guilamo-Ramos et al., 2005)
- A single underlying personality or behavioural factor to account for the range of risks that adolescents encounter has been proposed (Donovan & Jessor, 1985; Jessor, 1991)

- Does the concept of a general underlying risk factor also apply to online risk experiences?
- Would such a factor display a joint or separate risk propensity to that of offline risk experiences?
Surveying ‘Europe’

Random stratified sample: ~ 1000 9-16 year old internet users per country; total of 25142 internet-users, 25 countries

Fieldwork in spring/summer 2010; child + parent interviews at home, face to face

Questions validated by cognitive/pilot testing; self-completion for sensitive questions; care with research ethics

Informed by national stakeholders and an international advisory panel

Survey covered access, use, activities, risks (sexual images, sexual messages, bullying, meeting strangers), parental mediation, coping, vulnerability
Offline Risks

In the PAST 12 MONTHS, have you done any of these things? (11+ yrs, N = 18,709)

- Had so much alcohol that I got really drunk (8.2%)
- Missed school lessons without my parents knowing (12.6%)
- Had sexual intercourse (5.5%)
- Been in trouble with my teachers for bad behaviour (15.4%)
- Been in trouble with the police (2.9%)

Adapted from Health behaviour in school-aged children (HBSC);
see Currie et al., 2008
In the PAST 12 MONTHS…?
(11+ yrs, N = 18,709)

- Seen sexual images online (16.6%)
- Sent sexual messages online (2.9%)
- Bullied others online (3.2%)
- Made a new contact online (33.5%)
- Seen negative user generated content (21.4%)
  - (i.e., hate messages, content promoting bulimia/anorexia, self-harm or drug use)

see Livingstone, Haddon & Görzig, 2012
Confirmatory factor analyses

- **Two-factor:** Online and offline risk experiences as two separate factors
  a) Adolescents’ offline risk experiences are related to one underlying offline risk factor
  b) Adolescents’ online risk experiences are related to one underlying online risk factor

- **One-factor:** Assessing all risk experiences as one factor
  - Adolescents’ risk experiences (online and offline) are related to one underlying risk factor without any notable contribution of the specific environment (i.e., online or offline)

- **Bi-factor:** A general risk factor and two specific factors (online and offline risks)
  Adolescents’ risk experiences are related to two separate underlying components:
  - One related to the propensity to experience risks in general
  - One related to the specific environment of the risk experience (i.e., online or offline)
### Results: Model fit

**Table 1.** Fit of CFA models for adolescents’ risk experiences

<table>
<thead>
<tr>
<th>Model</th>
<th>df</th>
<th>$\chi^2$</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>two-factor</strong></td>
<td>34</td>
<td>338</td>
<td>0.98</td>
<td>0.97</td>
<td>0.022</td>
</tr>
<tr>
<td>one-factor</td>
<td>35</td>
<td>815</td>
<td>0.94</td>
<td>0.92</td>
<td>0.035</td>
</tr>
<tr>
<td><strong>bi-factor</strong></td>
<td>25</td>
<td>249</td>
<td>0.98</td>
<td>0.97</td>
<td>0.022</td>
</tr>
</tbody>
</table>

*Notes.* df: degrees of freedom; $\chi^2$: chi-square fit statistic; CFI: comparative fit index, values >0.95 indicate good fit; TLI: Tucker Lewis index, values >0.95 indicate good fit; RMSEA: root mean square error of approximation, values <0.08 indicate good fit.
Results: Factor loadings

Two-factor

- truant: 0.77
- teacher problems: 0.65
- police problems: 0.76
- alcohol: 0.88
- sex: 0.83
- negative content: 0.67
- cyberbully: 0.69
- sexted: 0.70
- sexual images: 0.76
- unknown contact: 0.64

Bi-factor

- truant: 0.50
- teacher problems: 0.37
- police problems: 0.53
- alcohol: 0.47
- sex: 0.53
- negative content: 0.61
- cyberbully: 0.66
- sexted: 0.68
- sexual images: 0.70
- unknown contact: 0.71

General Risk Factor

- Online Risk Factor
- Offline Risk Factor
Offline and online risk experiences are both associated with a common underlying propensity to a similar extend.

Consolidates findings showing co-occurrence of offline and online risks and are experienced by the same individuals.

Offline risk experiences are associated with a second factor - independent of the general risk factor.
- Aspects of the particular environment (individual, social, policies)

Online risks cannot be explained by factors that go beyond the general propensity to experience risks.
- New technologies do not bring with them new risks that are driven by that environment.
Implications

- Interventions should target risk and protective factors that can account for adolescents’ experiences across risk types (online and offline).
- Future research is needed to identify factors that are associated with a general propensity to experience risks in adolescence.
- Identify the link between a general propensity to experience risks and a vulnerability to harm.
- Replications with different selections of risks are needed.
THANK YOU!

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