

# A socio-ecological perspective of adolescents' risk and resilience online

Findings from *EU Kids Online* at  
“Research Twilight” - *University of West London*

Dr Anke Görzig

# A socio-ecological perspective of adolescents' risk and resilience online



## ■ Common myth about the internet

- Using the internet is bad for children
- The internet causes more harm to children than the “real world”
- The internet leads to mental health problems and suicide

## ■ Responses to internet risks

- Differentiating risk from harm
- Resilience and social inequality
- The role of the wider culture

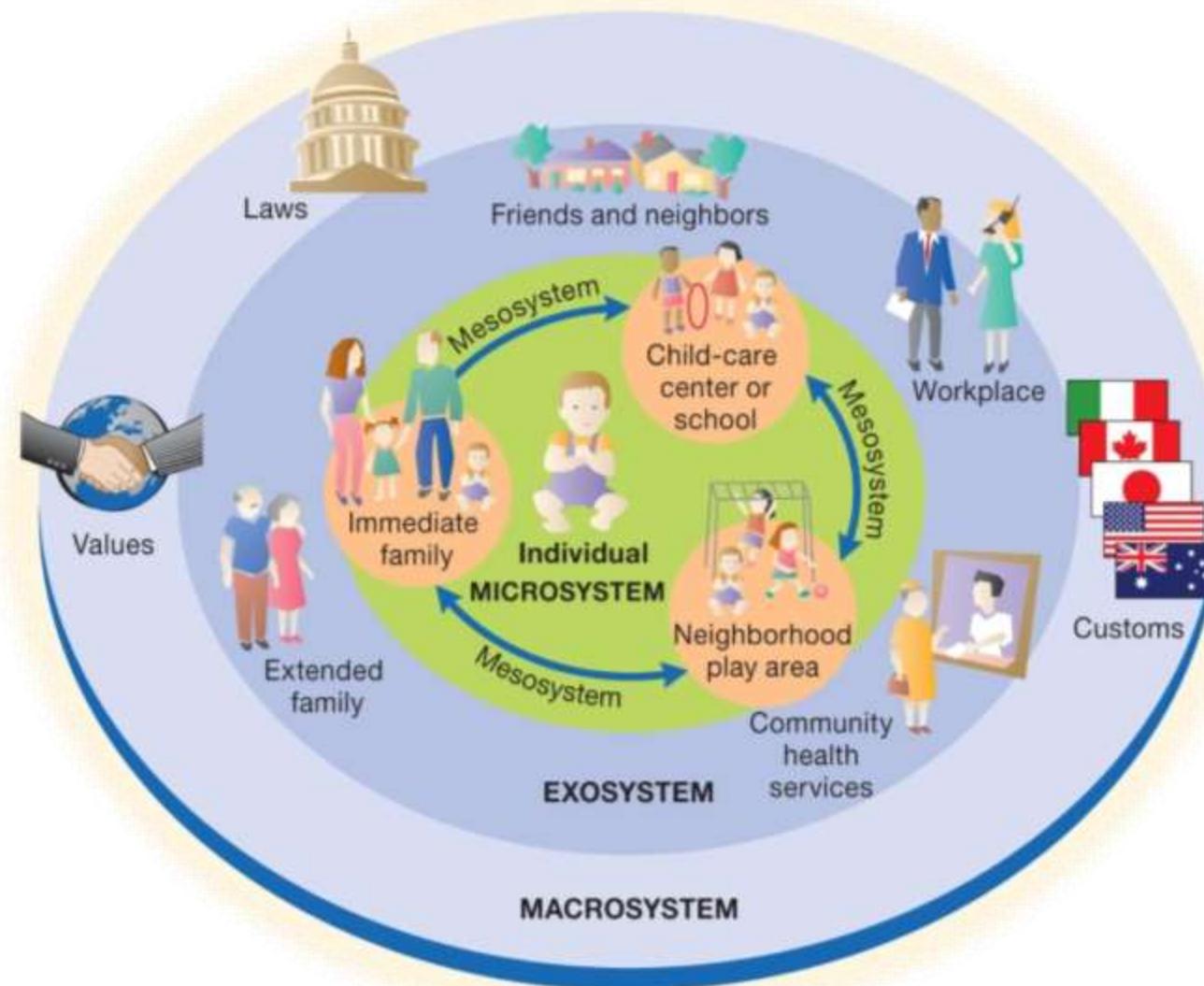
# A socio-ecological framework



Ecological systems theory (Bronfenbrenner, 1977, 1979)

- Human behaviour

Experience and behaviour of the individual is linked with factors on different levels of the environment



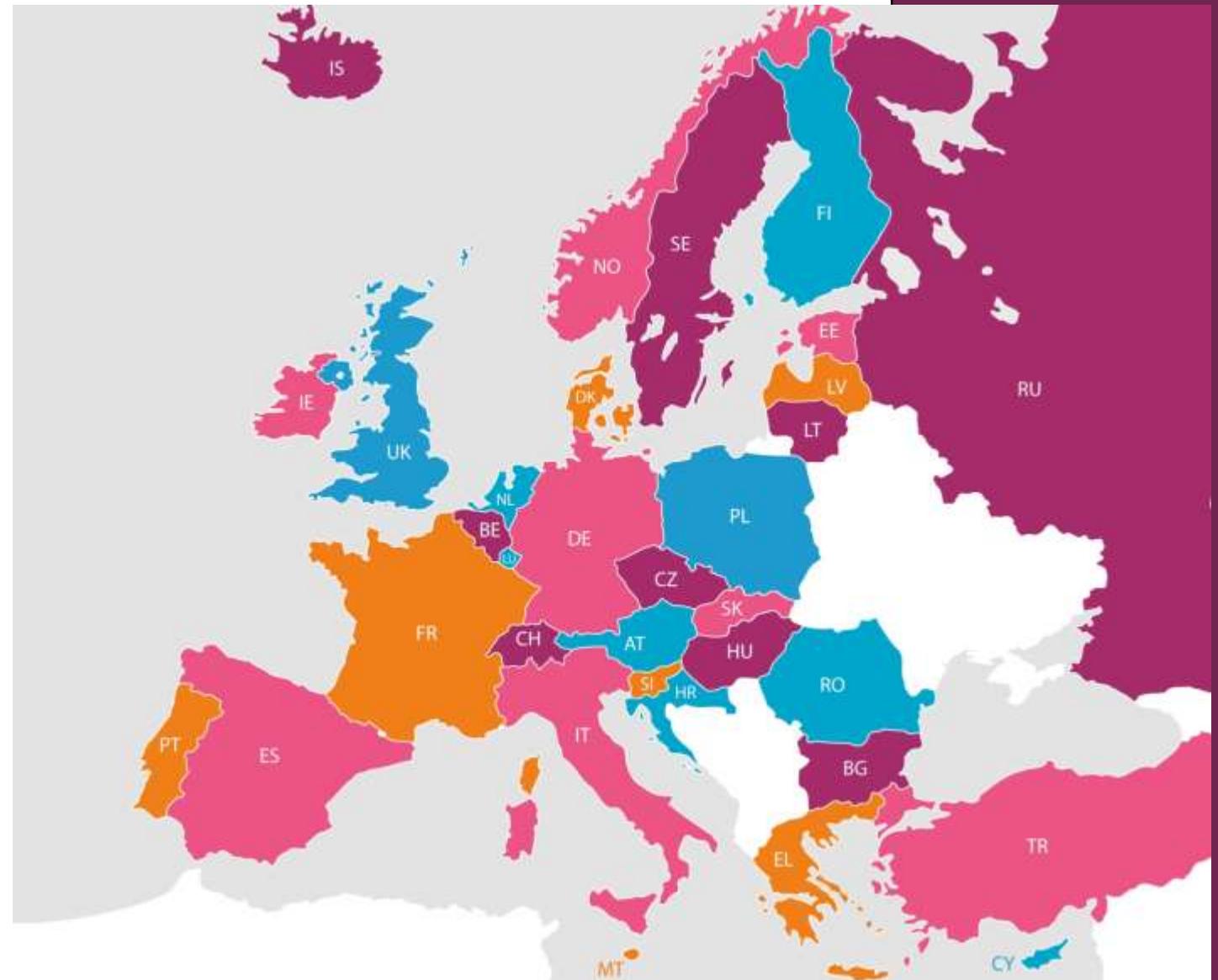
# The EU Kids Online network

A multinational research network. It seeks to enhance knowledge of European children's online opportunities, risks and safety.

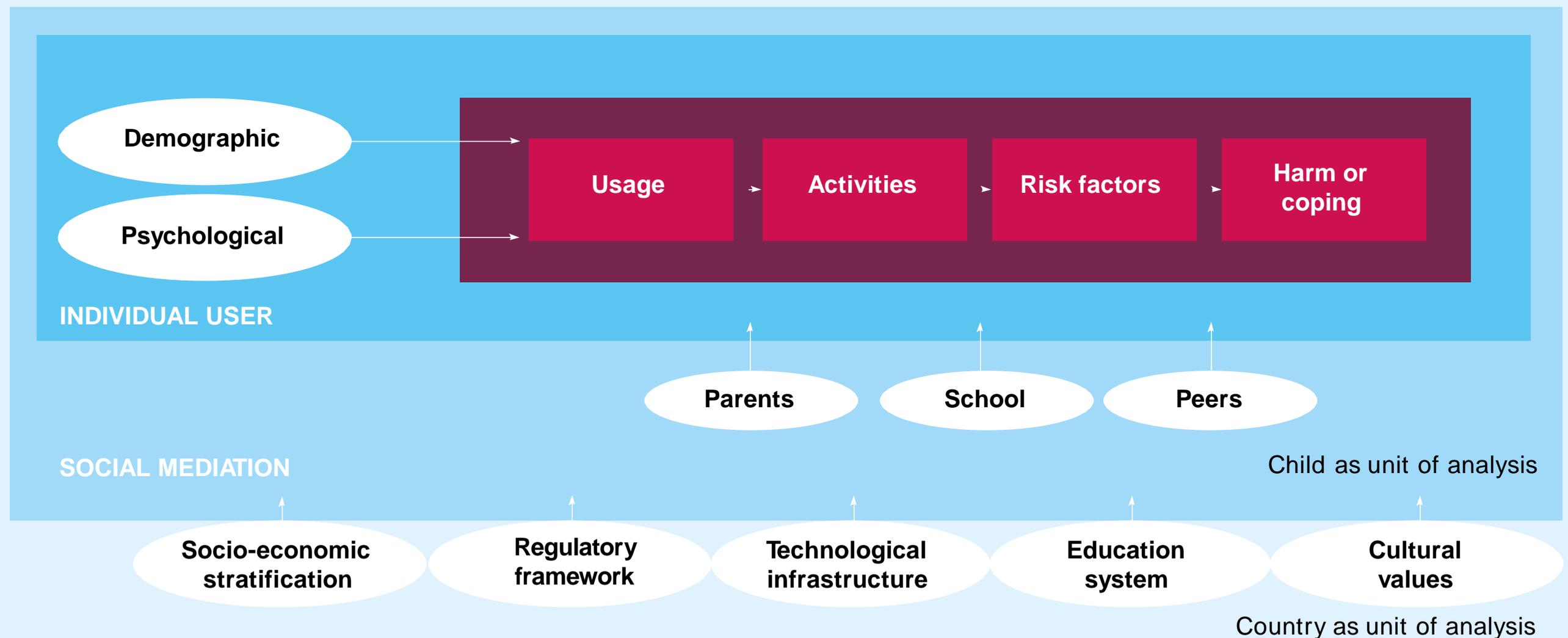
Currently researchers from 33 countries\*

For further information see [www.eukidsonline.net](http://www.eukidsonline.net)

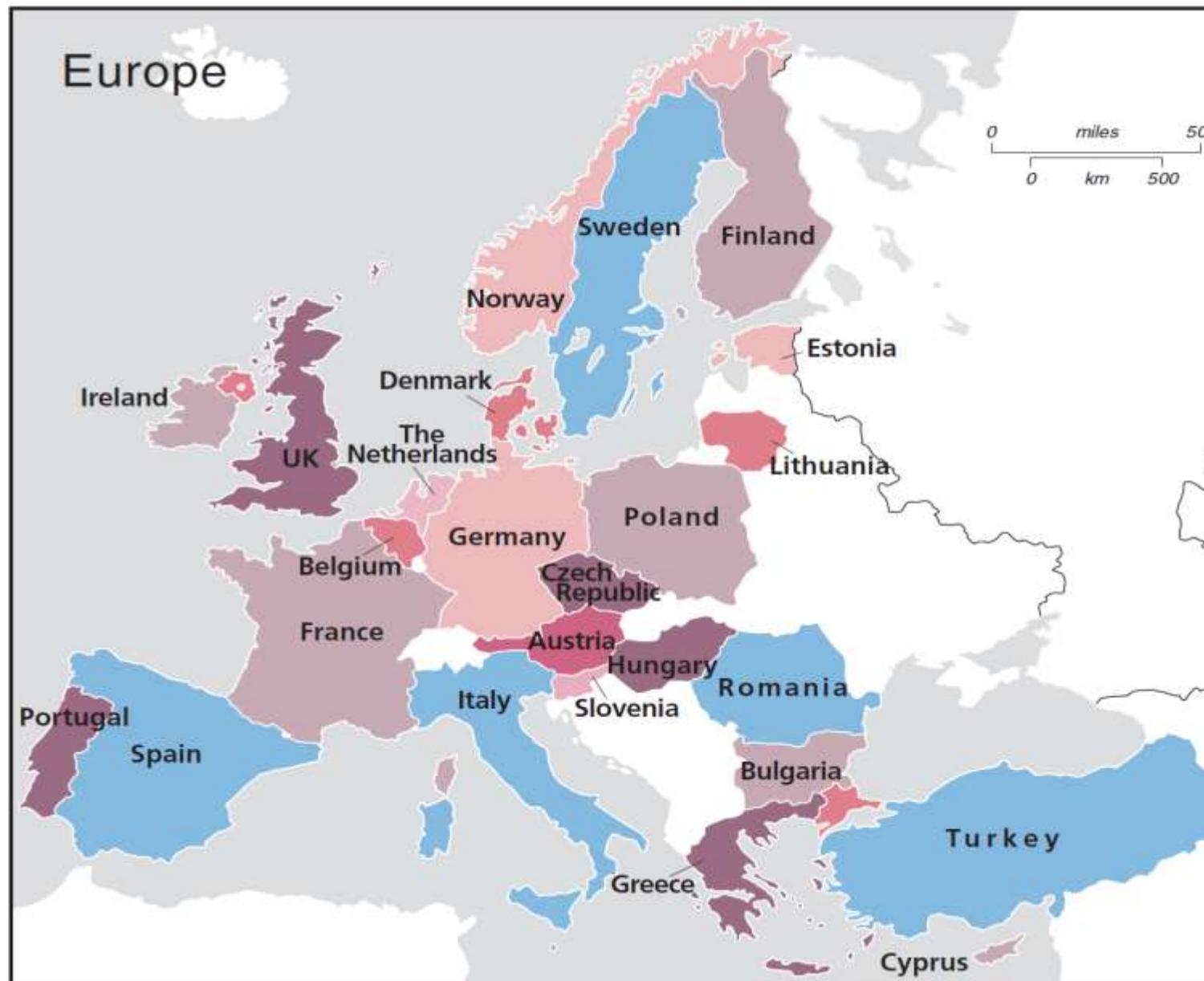
\*Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the UK, affiliates in Australia, Brazil and Chile



# Explaining risks and opportunities: The EU Kids Online model

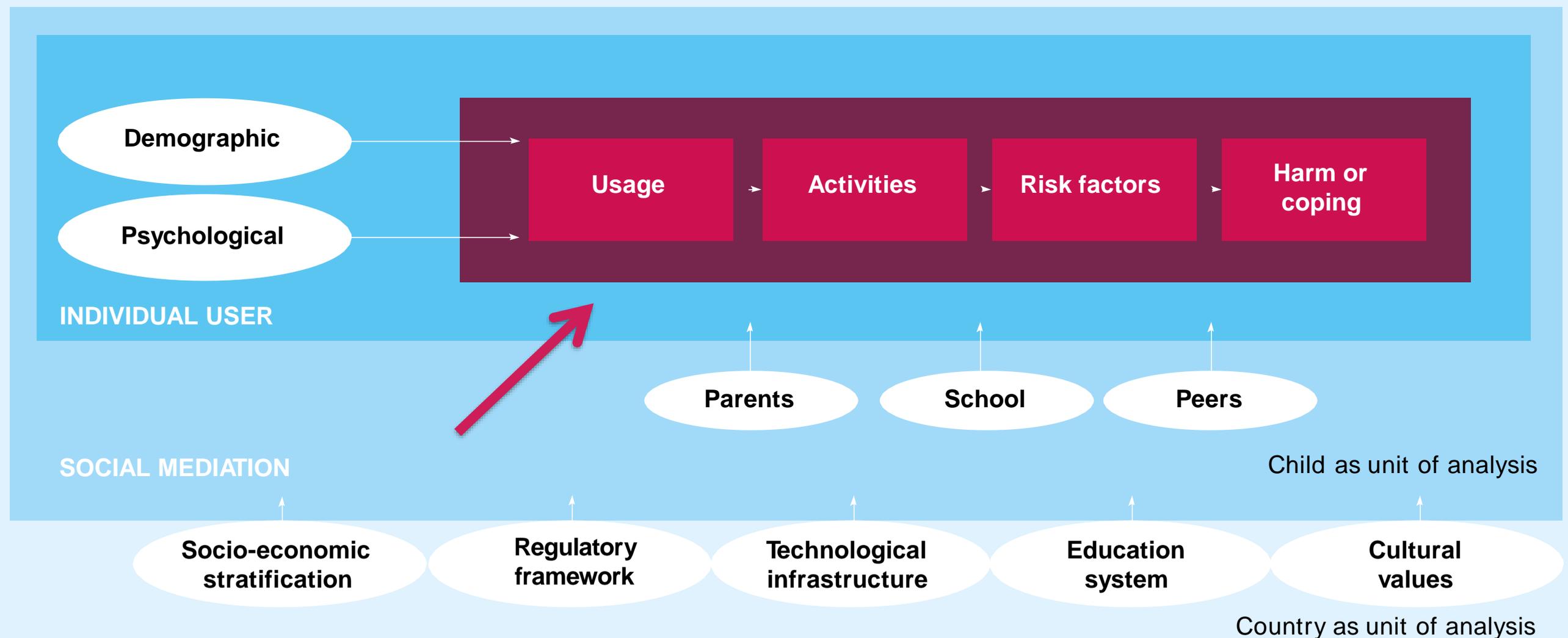


# Surveying 'Europe' - EUKO II



- 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

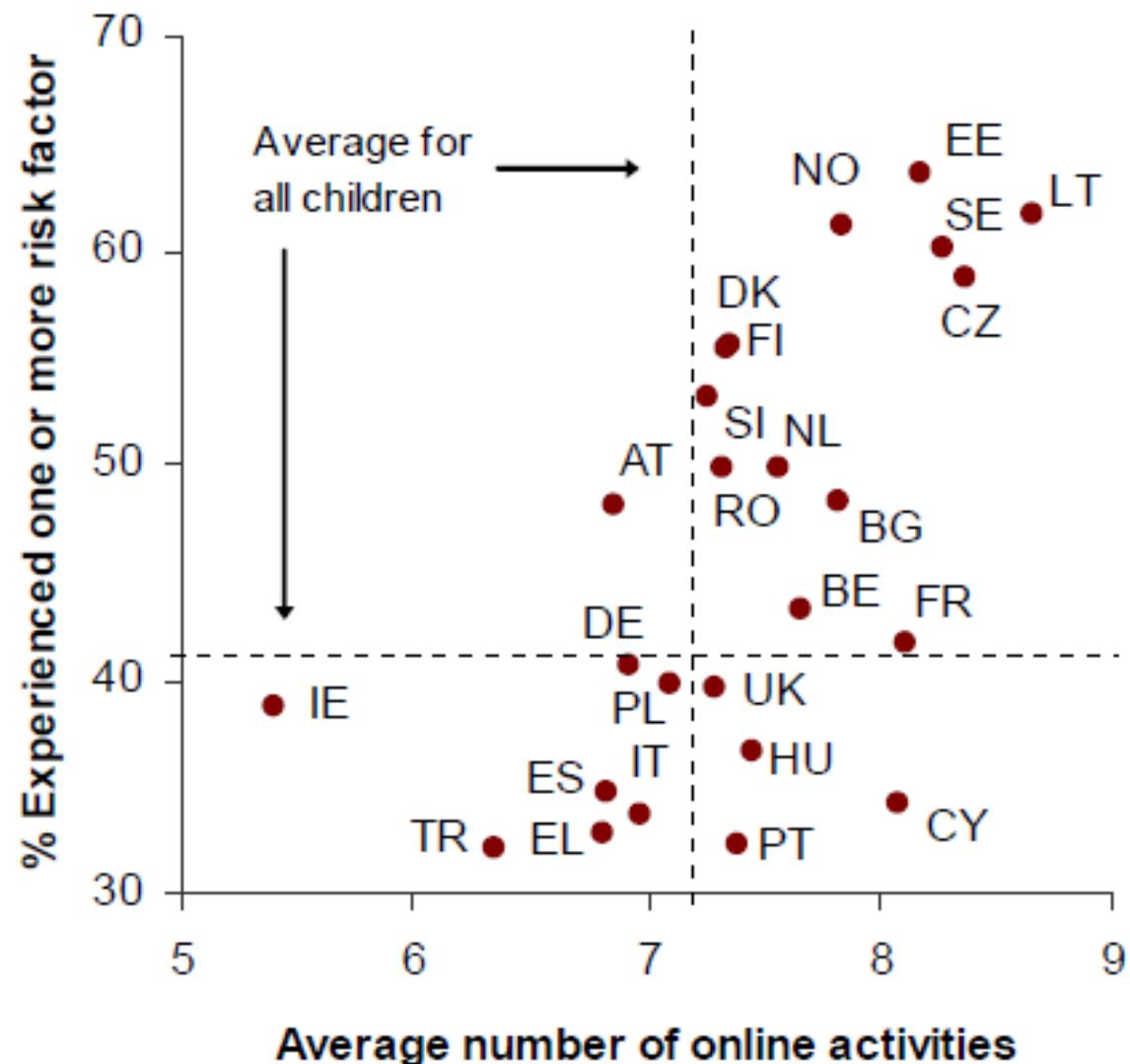
# Explaining risks and opportunities: The EU Kids Online model



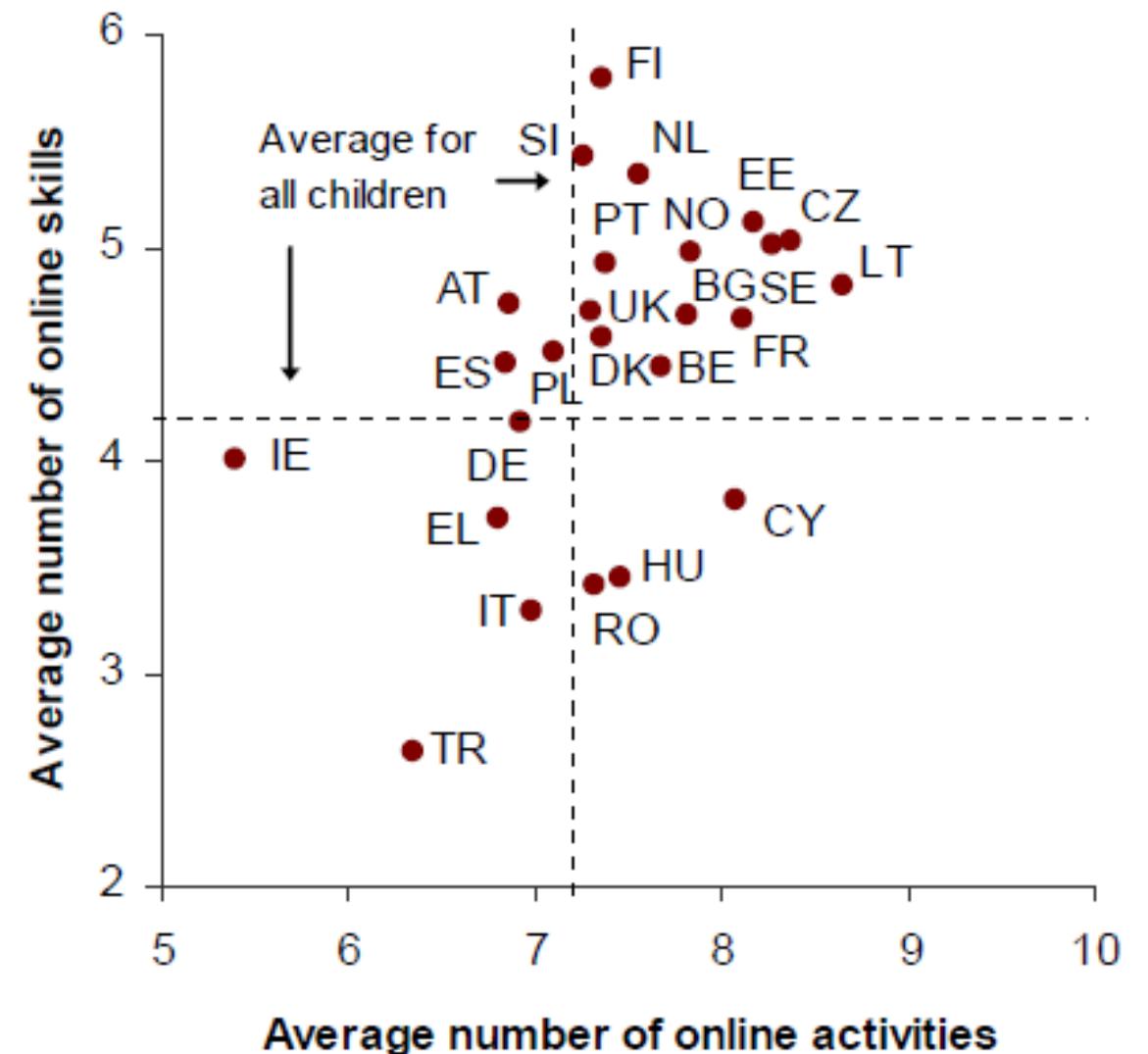
# Is using the internet good or bad?



Online activities by online risks



Online activities by online skills



# Is the internet more dangerous than the 'real world'?



**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)*



- Public concern has been amplified by the mass media (Vandebosch et al., 2013, 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)
  - Problem Behaviour Theory: A single underlying personality or behavioural factor to account for the range of risks (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?

# 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**

# Online Risks



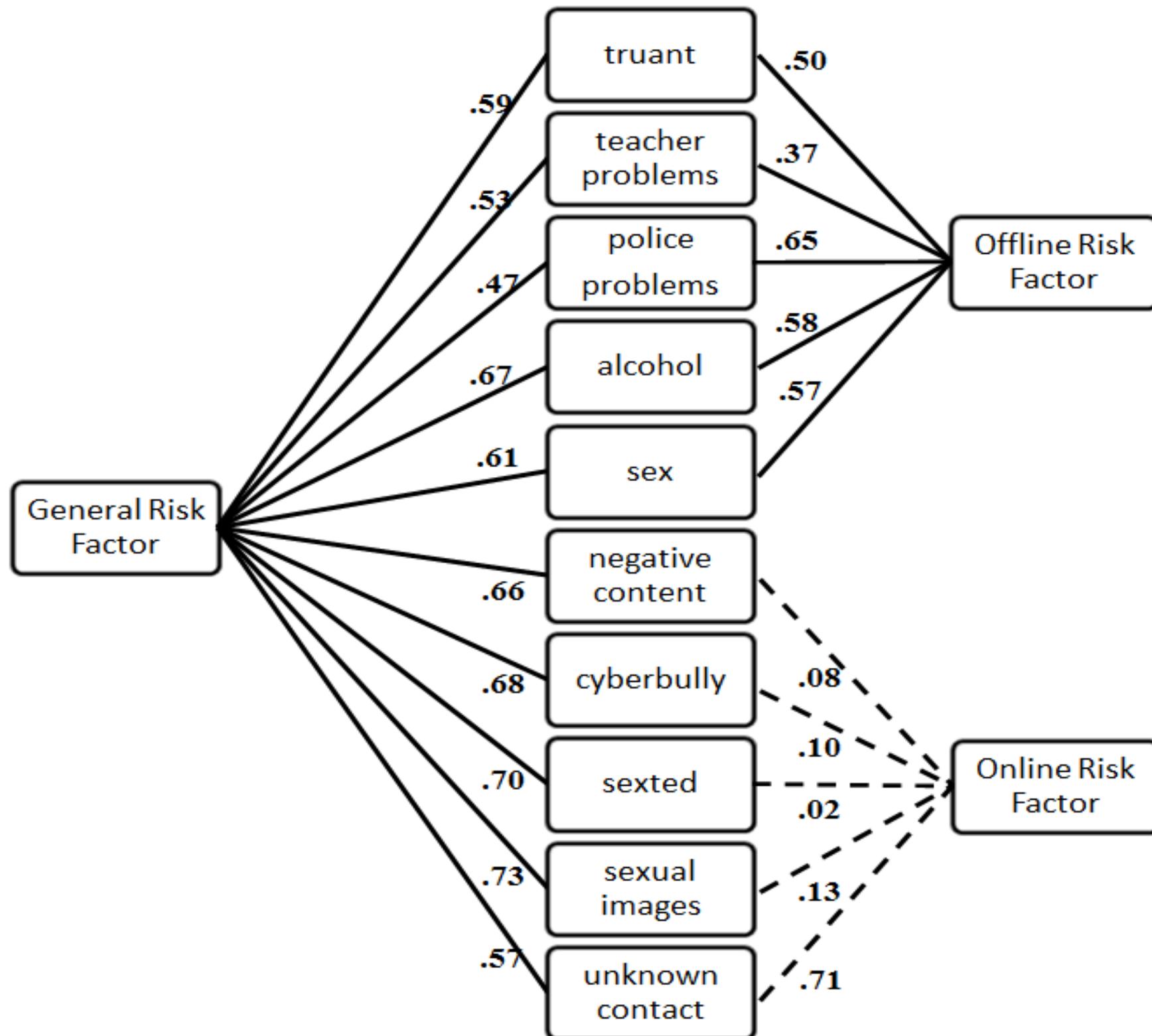
## In the PAST 12 MONTHS...?

(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

# A bi-factor model of risks



## A general risk factor and two specific factors

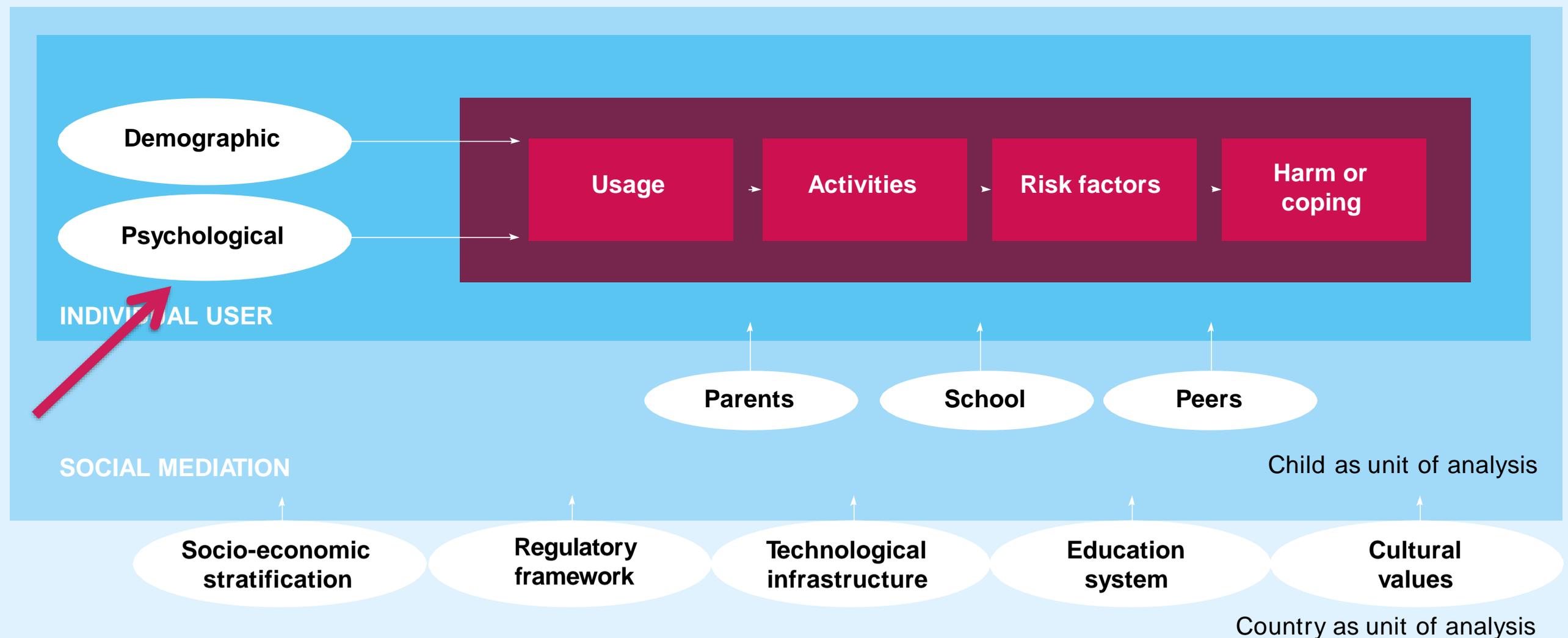
Adolescents' risk experiences are related to two separate underlying components related to:

1. the propensity to experience risks in general
2. the specific environment of the risk experience (i.e., online or offline)

→ Beyond the general propensity to experience risks, offline risks - but not online risks - can be explained by aspects associated with the particular environment

→ New technologies do not bring with them new risks that are driven by that environment

# Explaining risks and opportunities: The EU Kids Online model



Self-harm sites and cyberbullying: the threat to children from web's dark side

*(The Guardian, 10.3.2014)*

Suicide Among Children Is A Bigger Problem Than Ever Before, And Cyberbullying May Be The Cause

*(Inquisitr, 31.10.2014)*

More children 'self-harming because of cyber-bullying'

*(Metro, 27.5.2014)*

**DOES THE INTERNET LEAD TO MENTAL HEALTH PROBLEMS AND SUICIDE?**

# Adolescents' Viewing of Suicide-Related Web Content and Psychological Problems: Differentiating the Roles of Cyberbullying Involvement

Anke Görzig, PhD<sup>1,2</sup>

## Abstract

Possible links of cyberbullying with suicide and psychological problems have recently received considerable attention. Suicide-related behaviors have also been linked with viewing of associated web content. Studies on traditional bullying indicate that the roles of bullying involvement (bullies, victims, and bully-victims) matter in terms of associations with specific suicide-related behaviors and psychological problems. Yet, related research in the area of cyberbullying is lacking. The current study investigates the association of cyberbullying roles with viewing of specific suicide-related web content and psychological problems. Data from  $N=19,406$  (50 percent girls) 11–16-year-olds ( $M=13.54$ ,  $SD=1.68$ ) of a representative sample of Internet-using children in Europe were analyzed. Self-reports were obtained for cyberbullying role, viewing of web content related to self-harm, and suicide, as well as the emotional, peer, and conduct problem subscales of the Strengths and Difficulties Questionnaire (SDQ). Multinomial logistic regression analyses revealed that compared with those not involved in cyberbullying, viewing of web content related to suicide was higher for cyberbullies and cyberbully-victims, but not for cyberbullies. Viewing of web content related to self-harm was higher for all cyberbullying roles, especially for cyberbully-victims. Rates of emotional problems were higher among cyberbullies and cyberbully-victims, but rates of peer problems were higher for cyberbullies, and rates of conduct problems were higher for all cyberbullying roles. Moreover, the links between cyberbullying role and viewing of suicide-related web content were independent of psychological problems. The results can be useful to more precisely target efforts toward specific problems of each cyberbullying role. The outcomes on viewing of web content also indicate an opportunity to enhance the presence of health service providers on Internet platforms.



# Cyber-bullying Involvement Roles



Saying or doing hurtful or nasty things to someone. This can often be quite a few times on different days over a period of time, for example. This can include:

- teasing someone in a way this person does not like
- hitting, kicking or pushing someone around
- leaving someone out of things

When people are hurtful or nasty to someone in this way, it can happen:

- face to face (in person)
- by mobile phones (texts, calls, video clips)
- on the internet (e-mail, instant messaging, social networking, chatrooms)

**cyber-bullying**

# Cyber-bullying Involvement Roles



In the PAST 12 MONTHS...

...has **someone acted** in this kind of hurtful or nasty way **to you**?

...**have you acted** in a way that might have felt hurtful or nasty **to someone else**?

Cyber-victim

Cyber-bully

Cyber-bully/victim

# Viewing of suicide-related web-content\*



In the PAST 12 MONTHS, have you seen websites where people discuss...

- ways of committing suicide
- ways of physically harming or hurting themselves

Suicide

Self-harm

\*(11+ yrs., N = 19,406)

# Psychological Problems\*



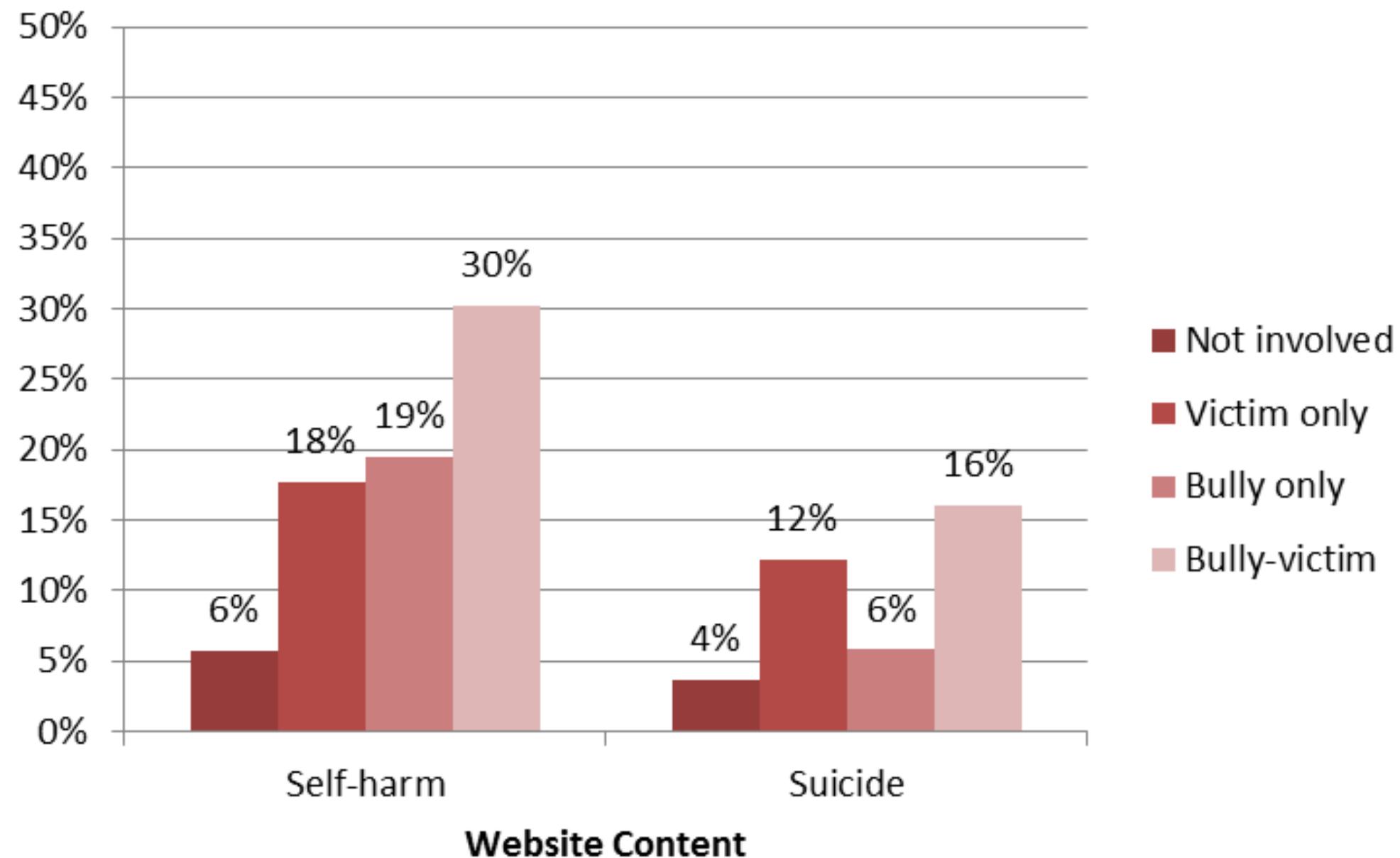
- **Strengths and difficulties questionnaire (SDQ;** Goodman, 1998)
  - **Emotional difficulties**, e.g. “I am often unhappy, sad or tearful.”
  - **Peer problems**, e.g. “Other people my age generally like me.” (reversed)
  - **Conduct problems**, e.g. “I get very angry and often lose my temper.”
    - **5 items each, 3-point scale: (1 = Not true, 2 = A bit true, 3 = Very true)**
  
- **Borderline clinical cut-off points** (Goodman et al., 2000)
  - **Used widely for screening in CAMHS** (Child & Adolescent Mental Health Services)
    - **Emotional difficulties: sum > 6**
    - **Peer problems: sum > 4**
    - **Conduct problems: sum > 4**

\*(11+ yrs., N = 19,406)

# Results: suicide-related web-content



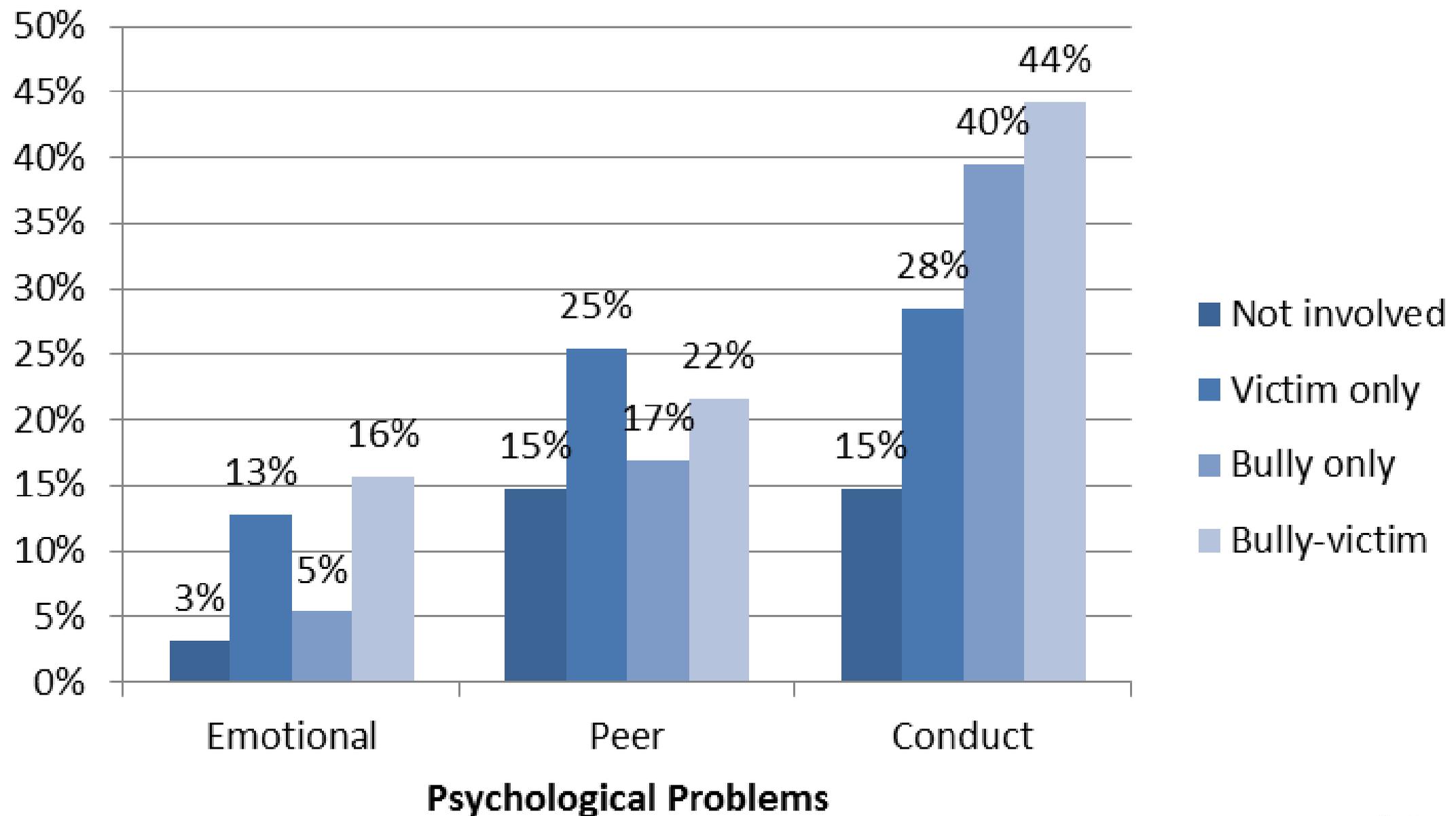
Percentages for Viewing of Suicide-Related Web-Content within Cyber-bullying Involvement Types.



# Results: Psychological Problems



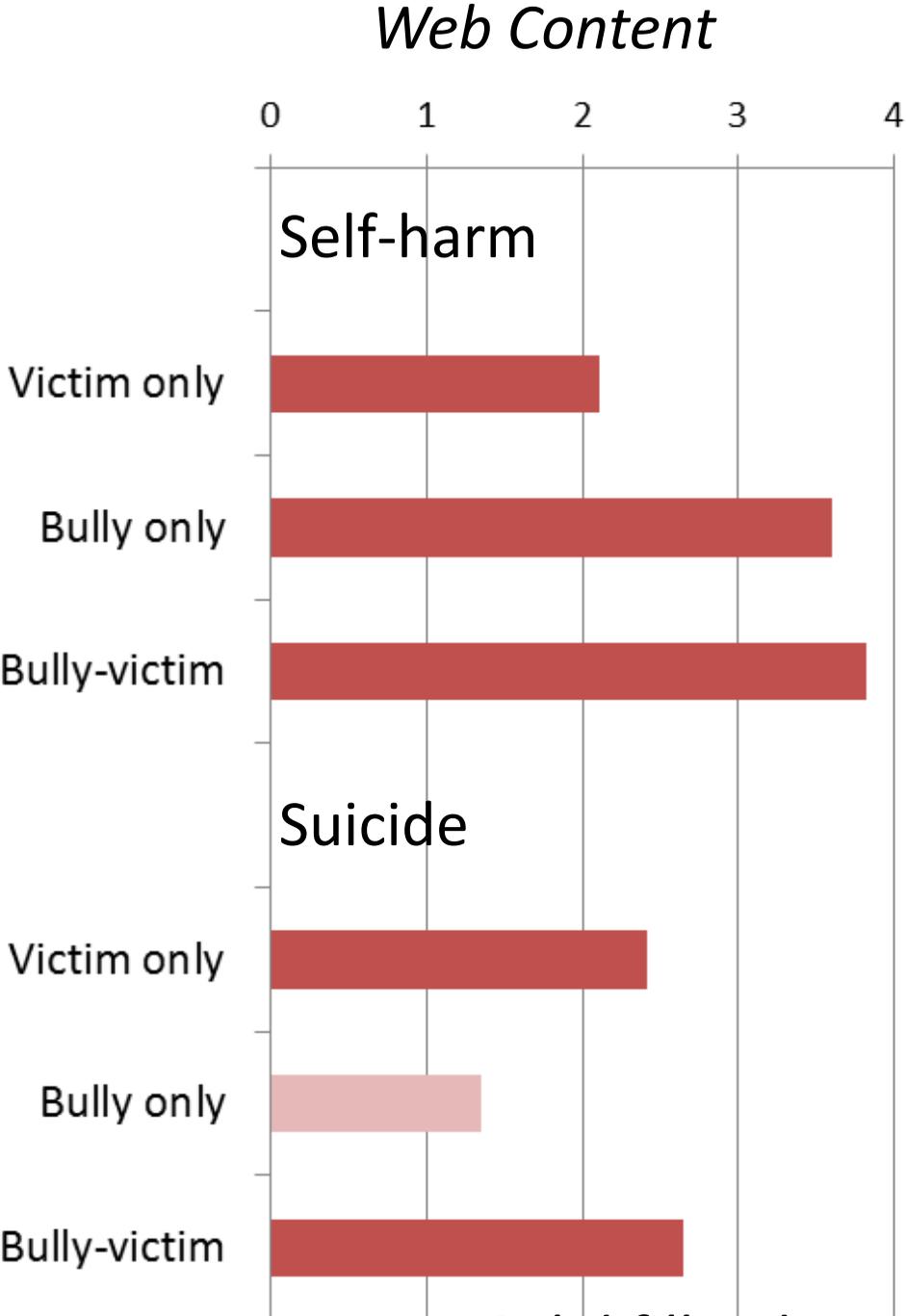
Percentages for Psychological Problems within Cyber-bullying Involvement Types.



# Multi-Nominal Regressions: Viewing of Web-Content and Psychological Problems on Cyber-bullying Involvement Type



Regression – Step 1 (viewing of web content only)  
Odds Ratios (reference group: not involved; controls: age, gender)

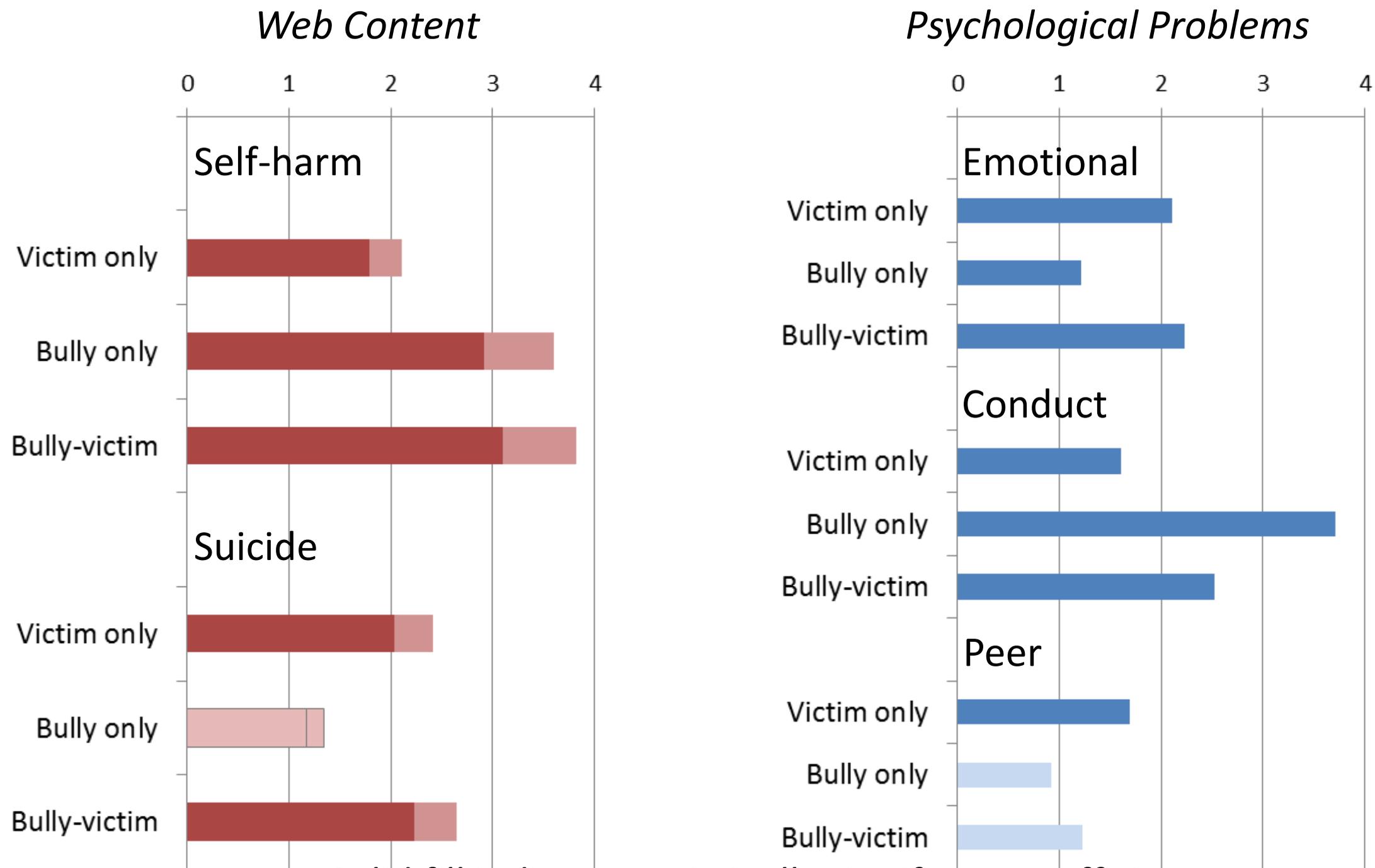


*Solid fill indicate statistically significant coefficients*

# Do psychological problems mediate between cyber-bullying type and viewing of suicide-related web-content ?



Regression – Step 2 (+ psych problems)  
 Odds Ratios (reference group: not involved; controls: age, gender)



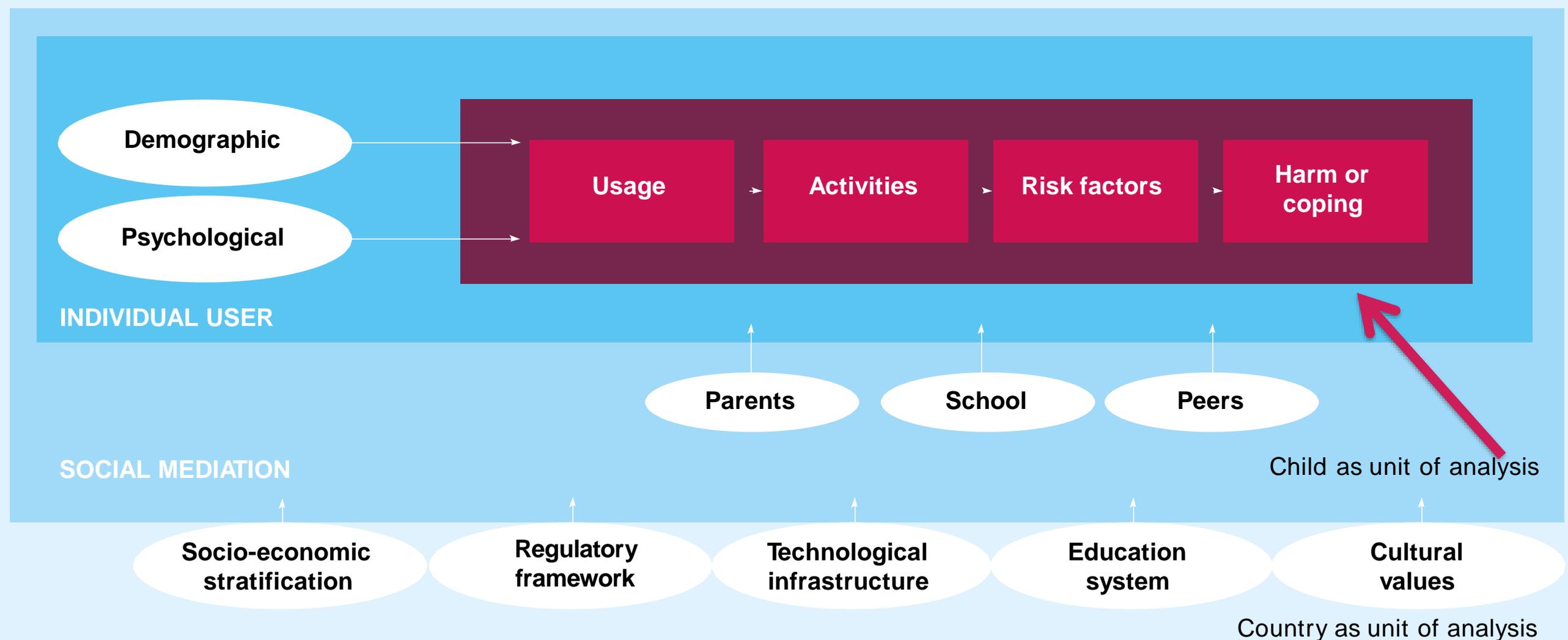
*Solid fill indicate statistically significant coefficients*

# Implications



- **Suicide-related web content**
  - Cyber-bully/victims most vulnerable
  - Generally all involved groups more at risk than not involved
  - *Exception: suicide – cyber-bullies no higher prevalence than not involved*
  
- **Psychological problems**
  - Cyber-victims: emotional, peer, conduct
  - Cyber-bullies: emotional, conduct
  - Bully/victims: emotional, conduct
  
- **Psychological problems mediate between bullying and suicide-related behaviours?**
  - No change in coefficients when controlling for psychological problems
  - Possible bi-directional nature of bullying and psychological problems (Kowalski & Limber, 2013)
  - Underlying common risk factor for various risk experiences (Donovan & Jessor, 1985; Jessor, 1991; Görzig, 2016)

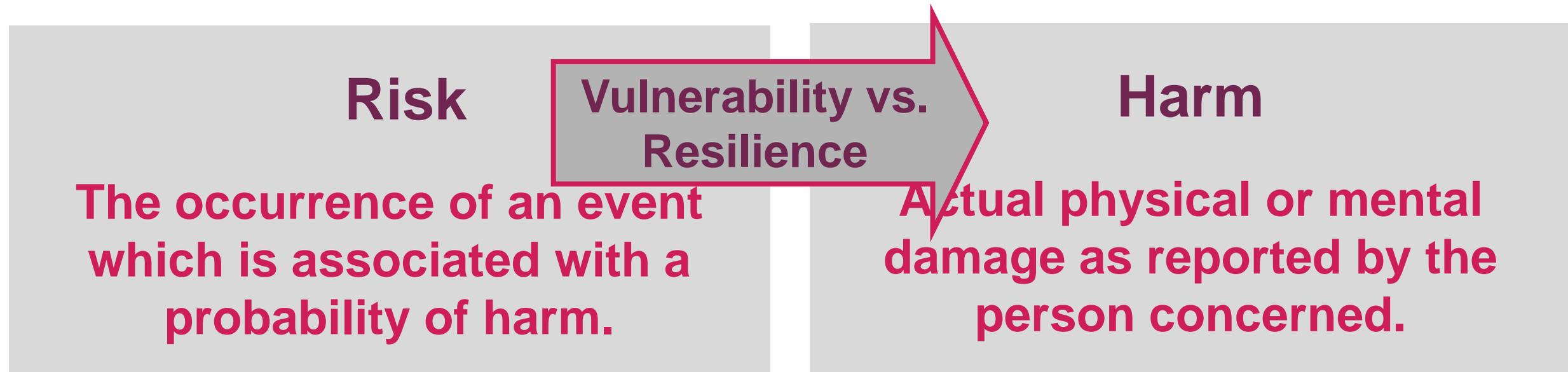
# Explaining risks and opportunities: The EU Kids Online model



Do internet risks affect everyone and everywhere?

# **RISK – VULNERABILITY AND RESILIENCE**

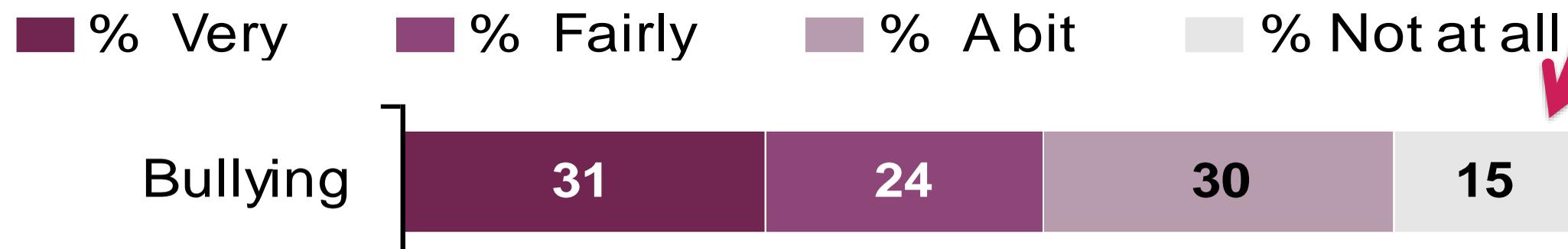
# Cyberbullying: Risk and Harm



## ■ Cyber-bullying

A. Risk: Being a victim (6%)

B. Harm: "How upset were you (if at all)?"



# Cyber-bullying Victimization

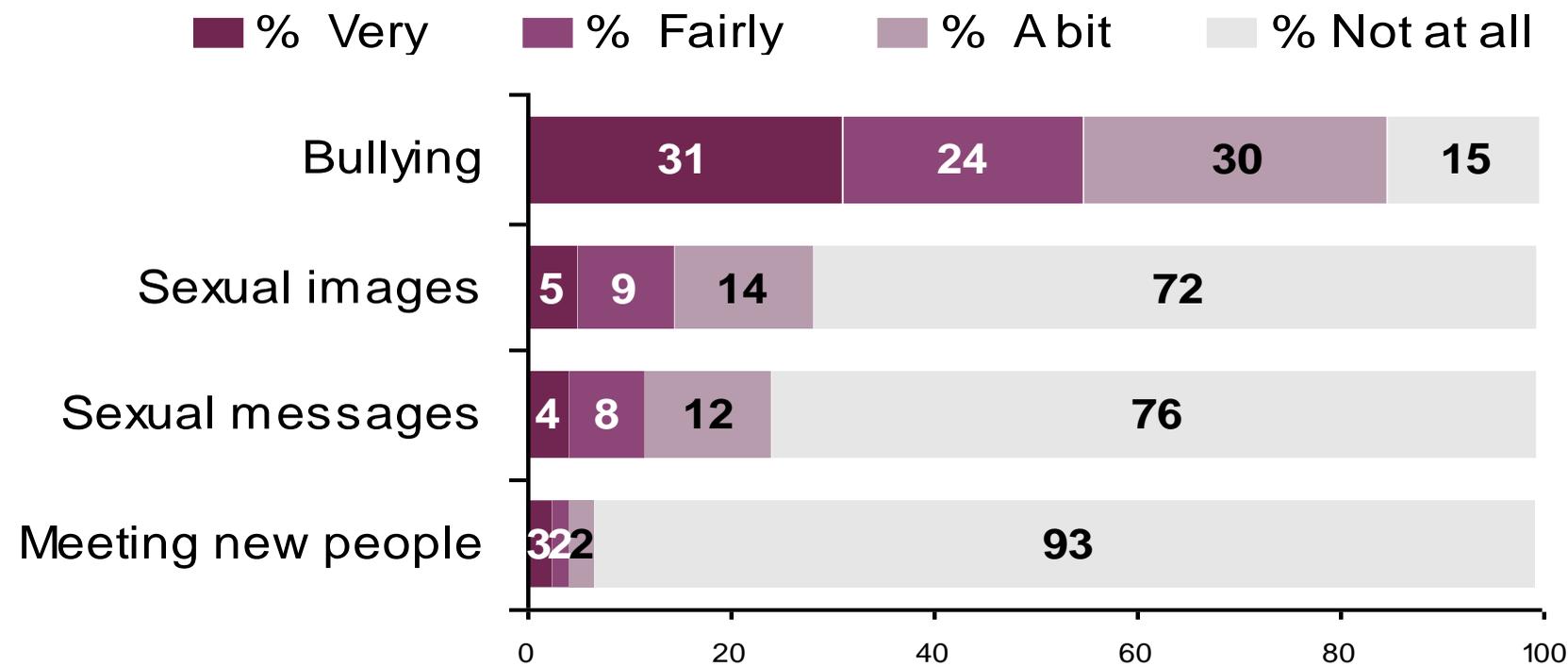
## Vulnerability and Resilience



Görzig & Machackova, 2016

	Risk	Harm	Vulnerability Resilience
Gender	girls	girls	girls
Internet use (child, parent, country)	higher	lower	Internet use
Psychological difficulties	higher	higher	Psychological difficulties
Sensation seeking	higher	lower	Sensation seeking
Self-efficacy	higher	lower	Self-efficacy
Social disadvantage (low SES, minority, discriminated)	higher	higher	Social disadvantage
Restrictive mediation	lower	higher	Less restrictive mediation

# Harm across risks



More **online risks** are experienced by children who are:

- older, higher in self-efficacy and sensation seeking
- do more online activities
- have more psychological problems

Online risks are found more **harmful and upsetting** by children who are:

- younger, lower in self-efficacy, and sensation seeking
- do fewer online activities, have fewer skills
- have more psychological problems

# Inequalities in risk and resources to cope

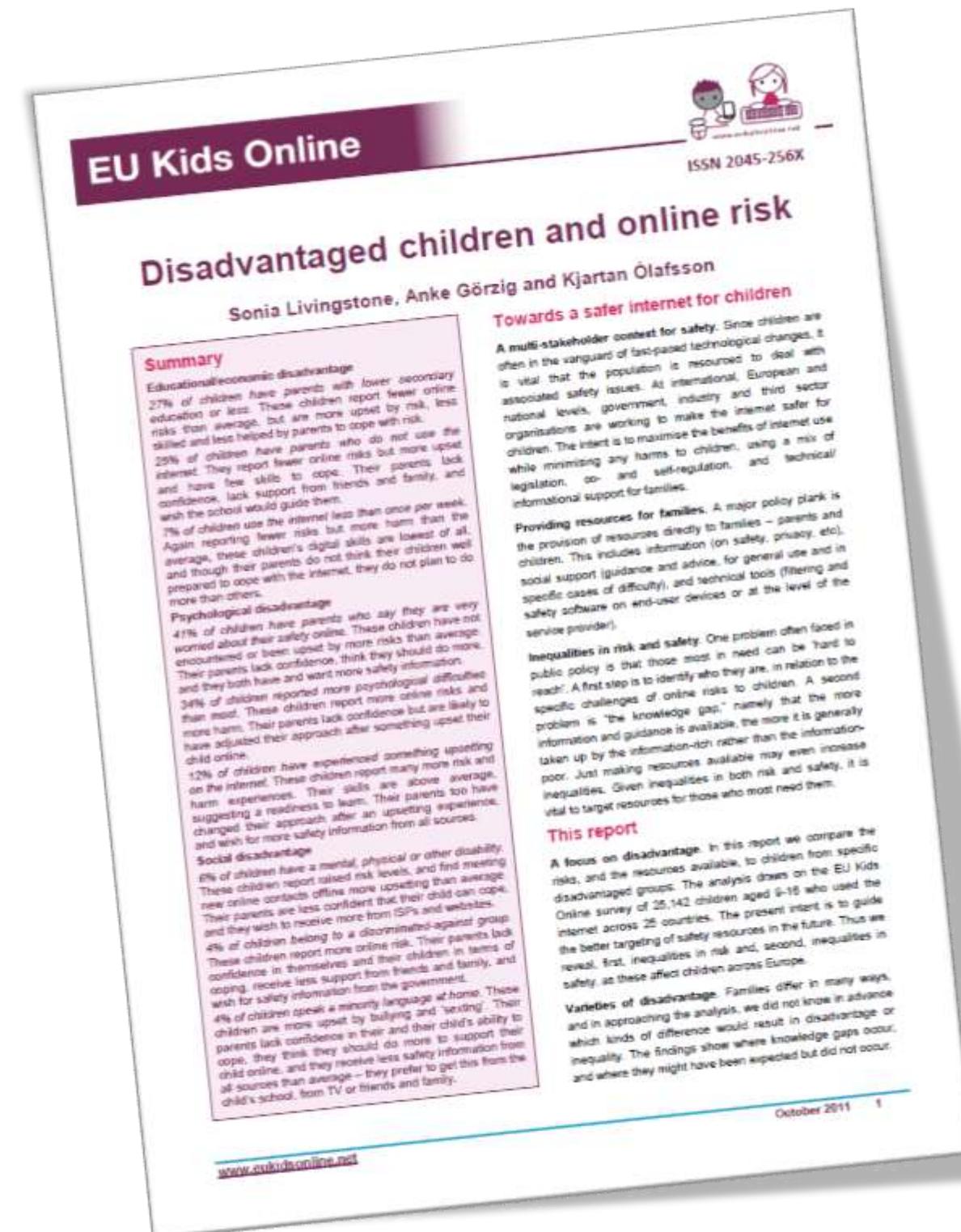


## Educational/economic disadvantage

- 27% have parents with lower secondary education or less
- 25% have parents who do not use the internet
- 7% of children use the internet less than once per week
- Experience fewer risks but more harm – less resilient
- Build digital skills and resilience given a relative lack of experience of the internet at home

## Psychological and social disadvantage

- 34% have more psychological difficulties than most
- 6% of children have a mental, physical or other disability
- 4% of children belong to a discriminated-against group
- Experience more risks and more harm.
- Providing targeted guidance for coping and ensuring a wider range of sources of safety information (eg, online sources for parents of disabled children, government sources for parents of discriminated-against children)



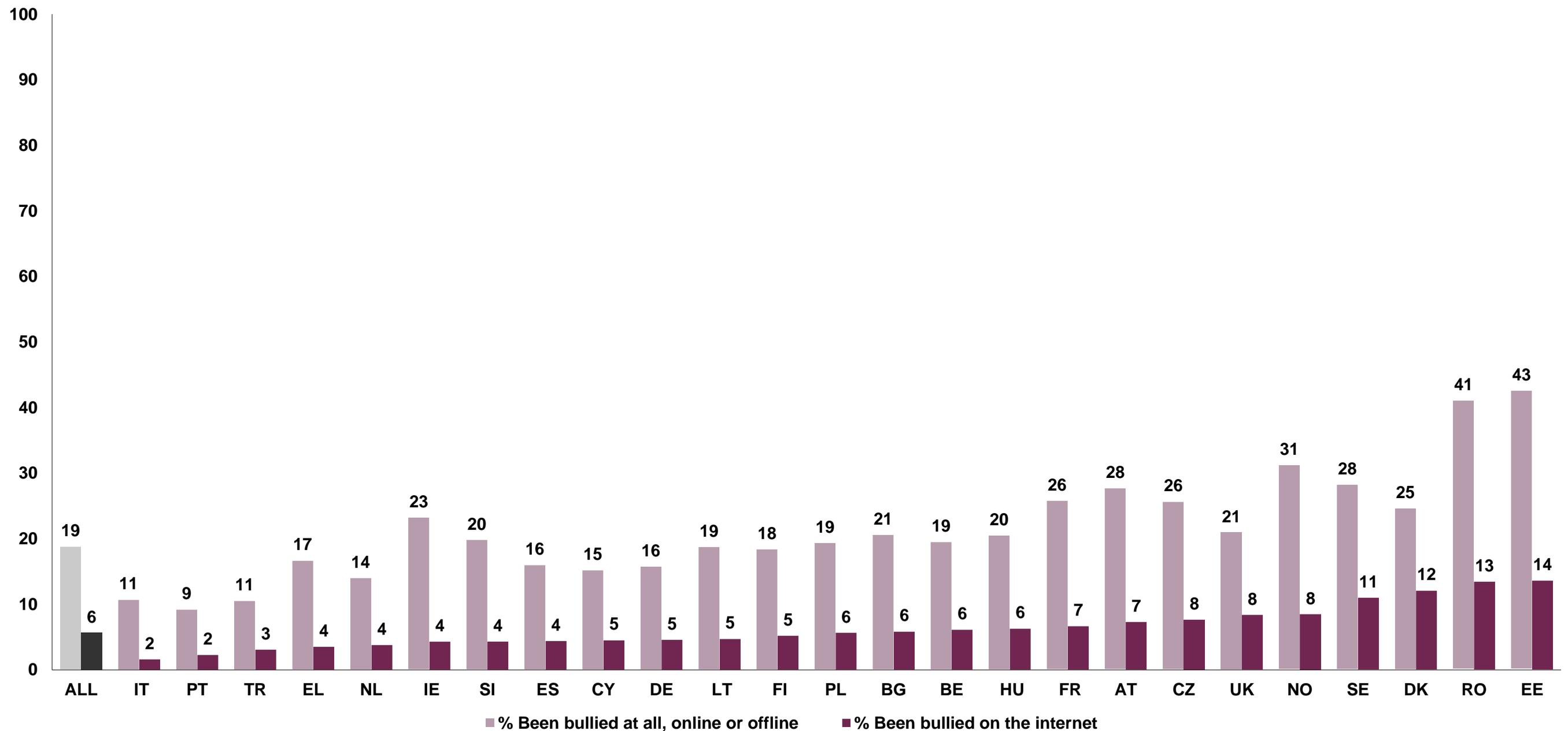
Do internet risks affect everyone and **everywhere**?

# **RISK – VULNERABILITY AND RESILIENCE**

# Cyber-bullying in Context

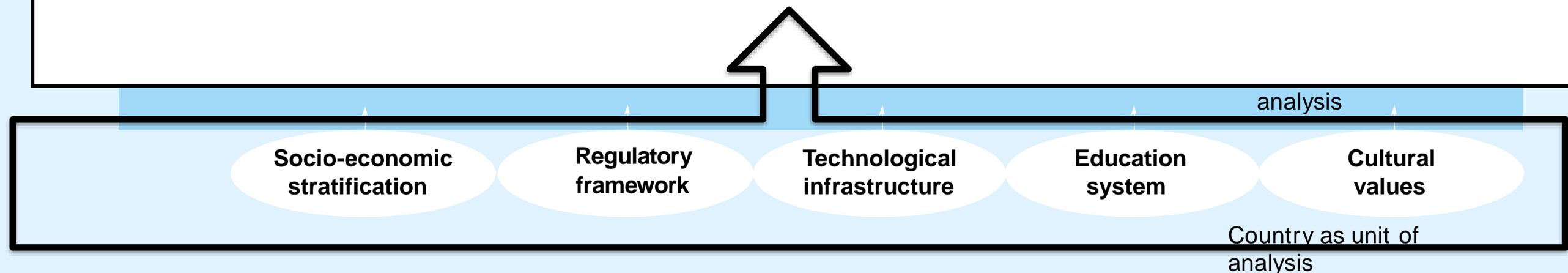


- Prevalence estimates range from 2% to 14% across 25 countries (Livingstone, Haddon, Görzig & Ólafsson, 2011)
- Country-level explains ca. 7% of variance in cyberbullying prevalence (cf. Görzig & Machackova, 2015)



# EXPLANATIONS OF CROSS-NATIONAL DIFFERENCES

- **CULTURAL VALUES** [Hofstede, Gelfand, Schwartz etc]
- **EDUCATION SYSTEM** [levels by age, grade retention, class groupings, school & class size, structure of school day, break times and supervision]
- **TECHNOLOGICAL INFRASTRUCTURE** [penetration of mobile phones, smart phones and internet]
- **REGULATORY FRAMEWORK** [school policies, legal aspects, anti-bullying initiatives]
- **SOCIO-ECONOMIC STRATIFICATION** [GDP, socioeconomic inequality]

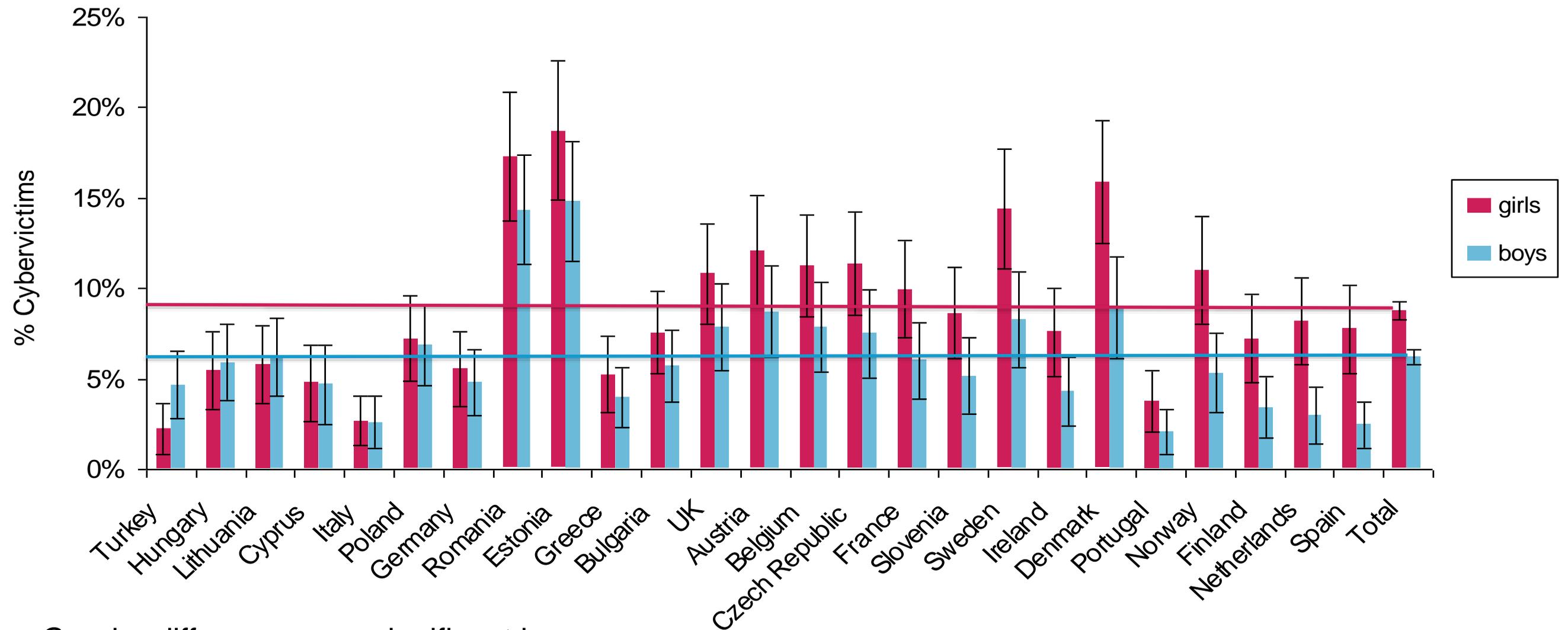


# Gender differences by country



Görzig & Machackova, 2016

Cyberbullying victims by country and gender

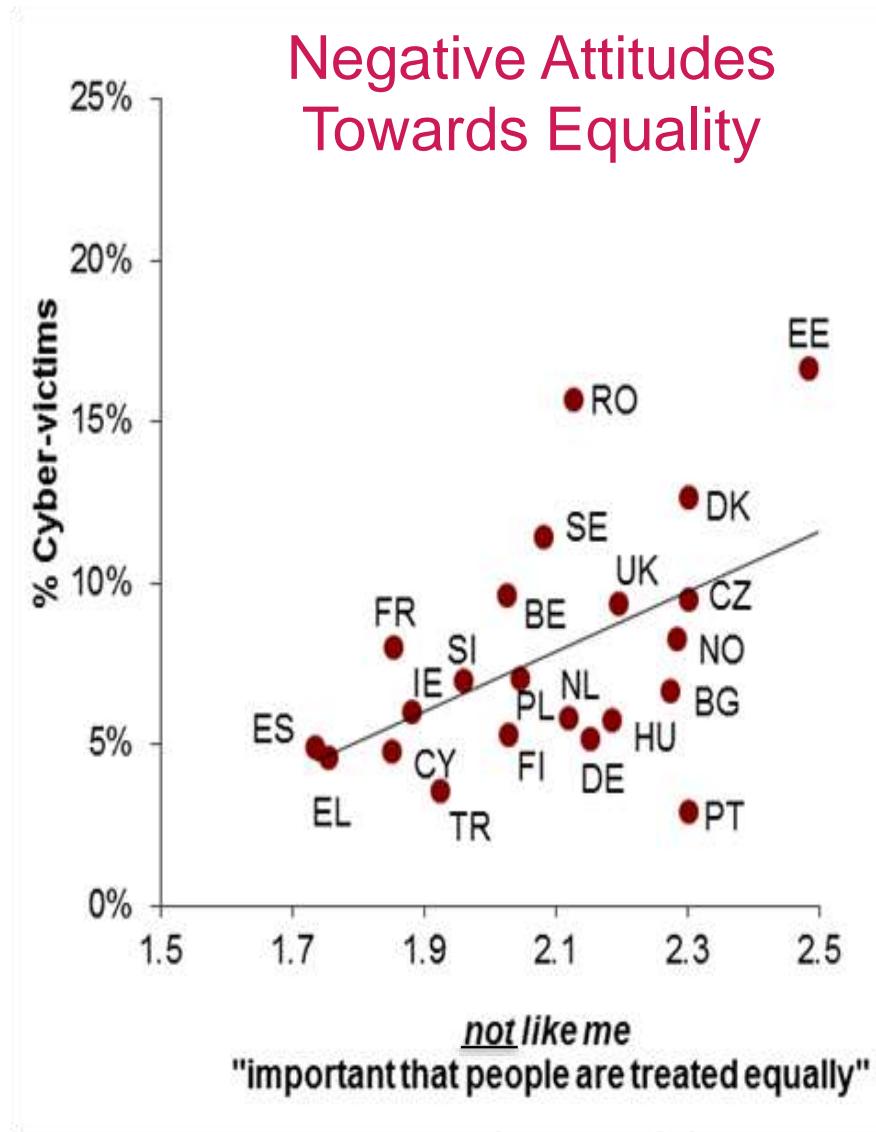


Gender differences are significant in

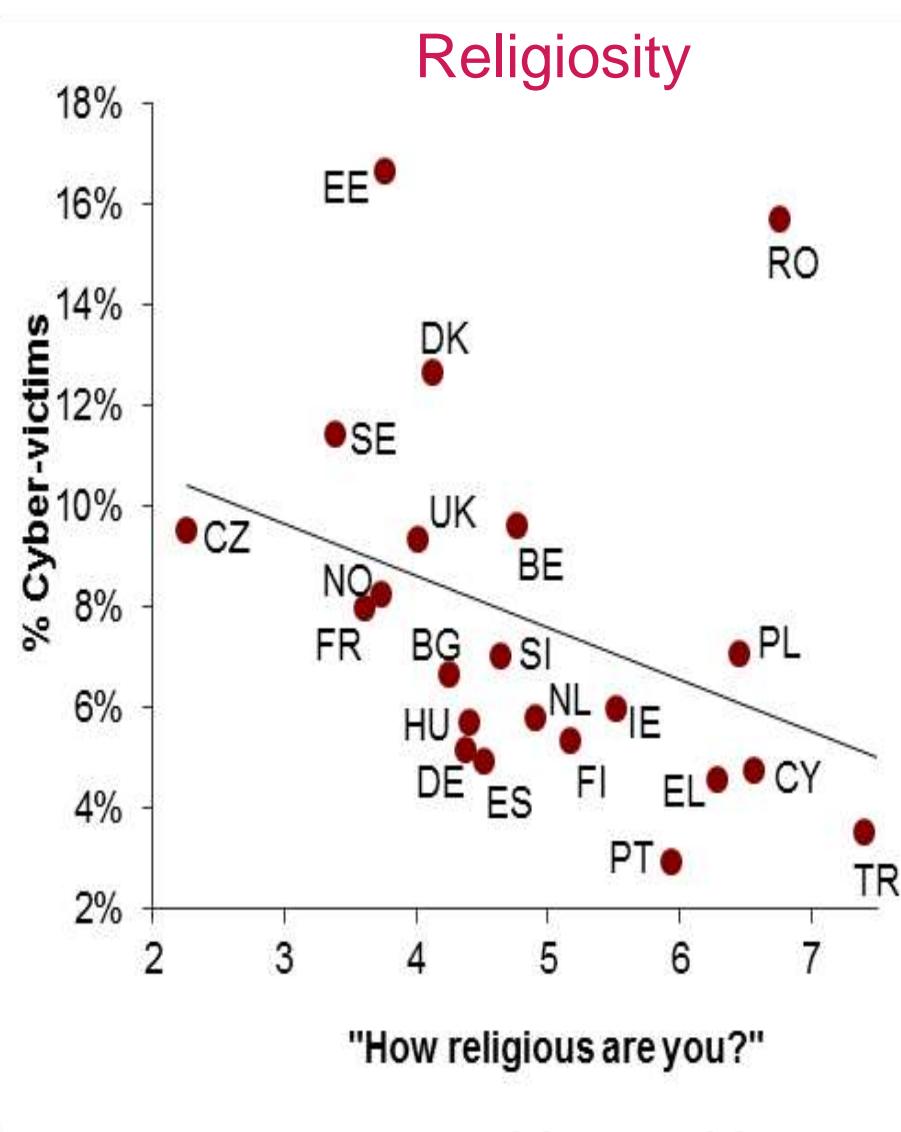
Sweden, Denmark, Norway, the Netherlands and Spain

Note: Data are weighted.

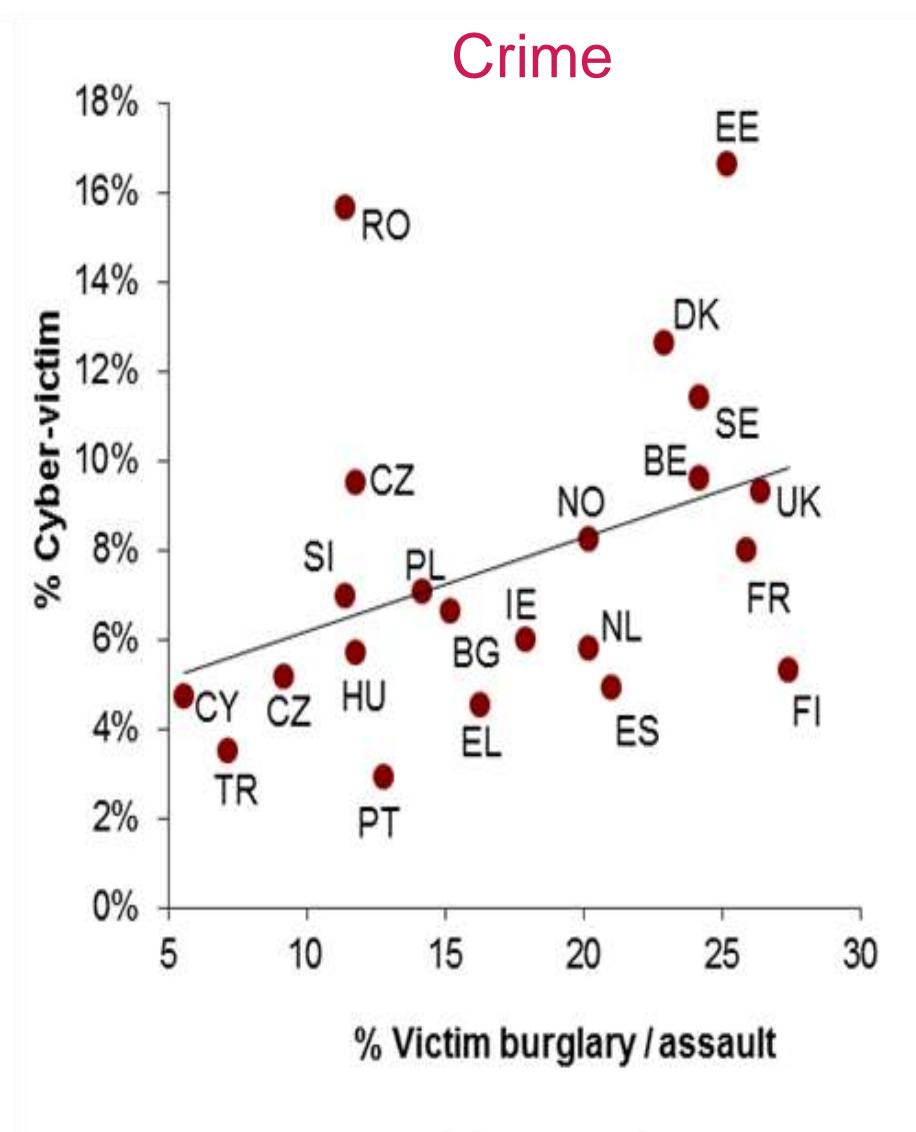
# Cultural level factors



OR = 3.21  
VPC = 4.7%  
( $\chi^2(1) = 5.49; p < .05$ )



OR = 0.84  
VPC = 4.9%  
( $\chi^2(1) = 4.96; p < .05$ )



OR = 1.03  
VPC = 5%  
( $\chi^2(1) = 4.57; p < .05$ )

# Identifying contextual factors: Social inequality



## ■ Bullying:

An act of aggression which is intentional, repetitive and directed towards an individual of lower power (cf. Olweus, 1993)

## ■ Cyber-bullying:

An act of aggression which is intentional, repetitive and directed towards an individual of lower power using *electronic forms of contact, specifically mobile phones or the internet* (Smith et al., 2006).

## **Social Dominance Theory** (cf. Pratto, Sidanius, & Levin, 2006)

- Power imbalances originates from multiple levels (e.g., cultural policies and practices, individual relations)

→ Bullying interrelated with power differences within society at large?

# Contextual factors linked with social inequality



- **Economic performance**
  - Inequality *between* contexts, i.e. relative wealth
  
- **Life expectancy**
  - Inequality *within* contexts
  - Represents psychological and social differences
  
- **Crime rates**
  - Linked with social inequality on neighbourhood to national levels
  
- **Population Density (urbanicity)**
  - Increased levels of factors mentioned above (i.e., community violence, poverty and life expectancy)

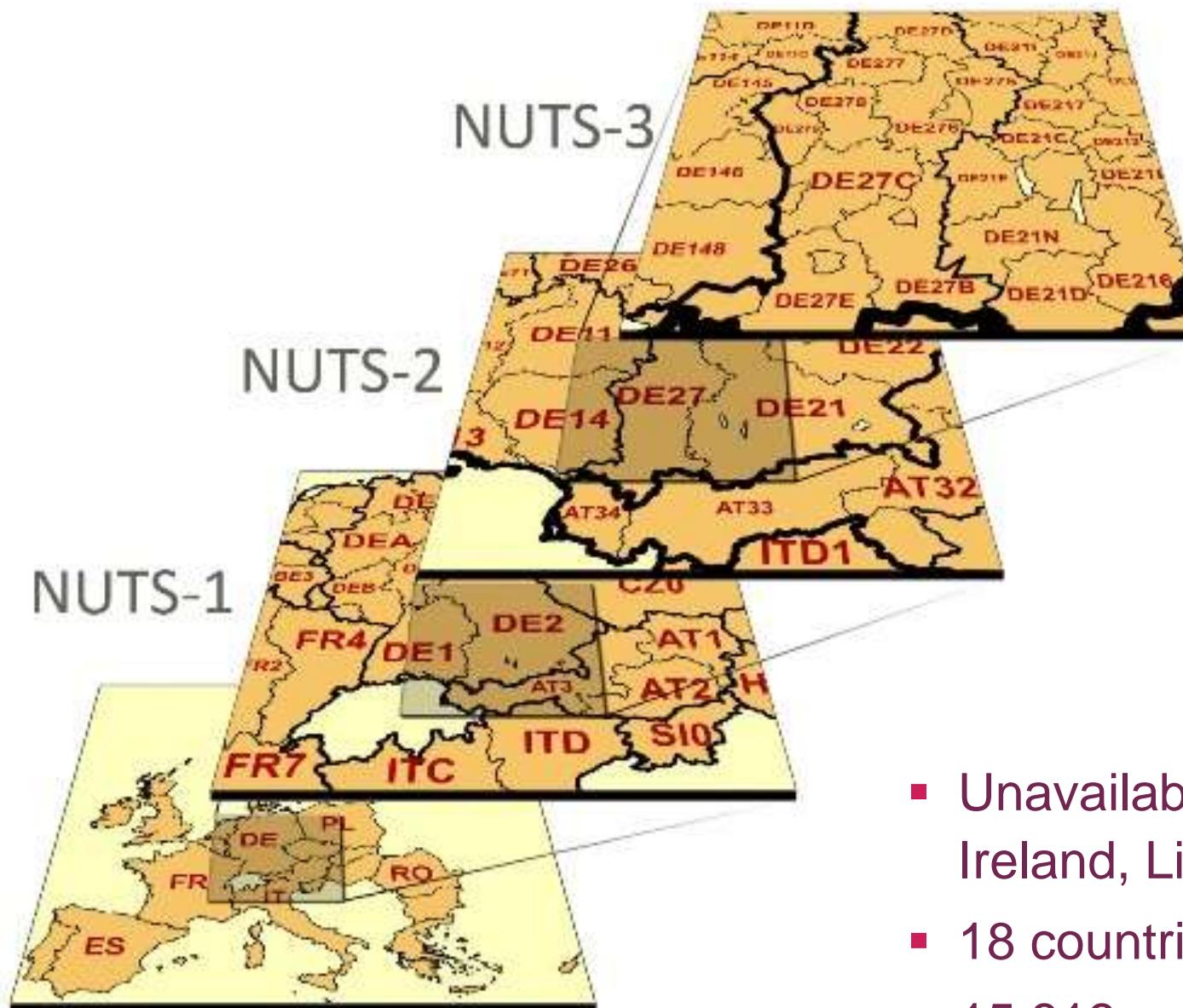
# European Regional Statistics: NUTS....



## Nomenclature of Territorial Units for Statistics

## ESS Round 5 (2010), NUTS 2

- Italy: 2012, Romania: 2008
- UK: population density, life expectancy (2012), NUTS1
- France: life expectancy (2012)
- Germany: NUTS1
- GDP: Greece, Finland, Romania (2009)

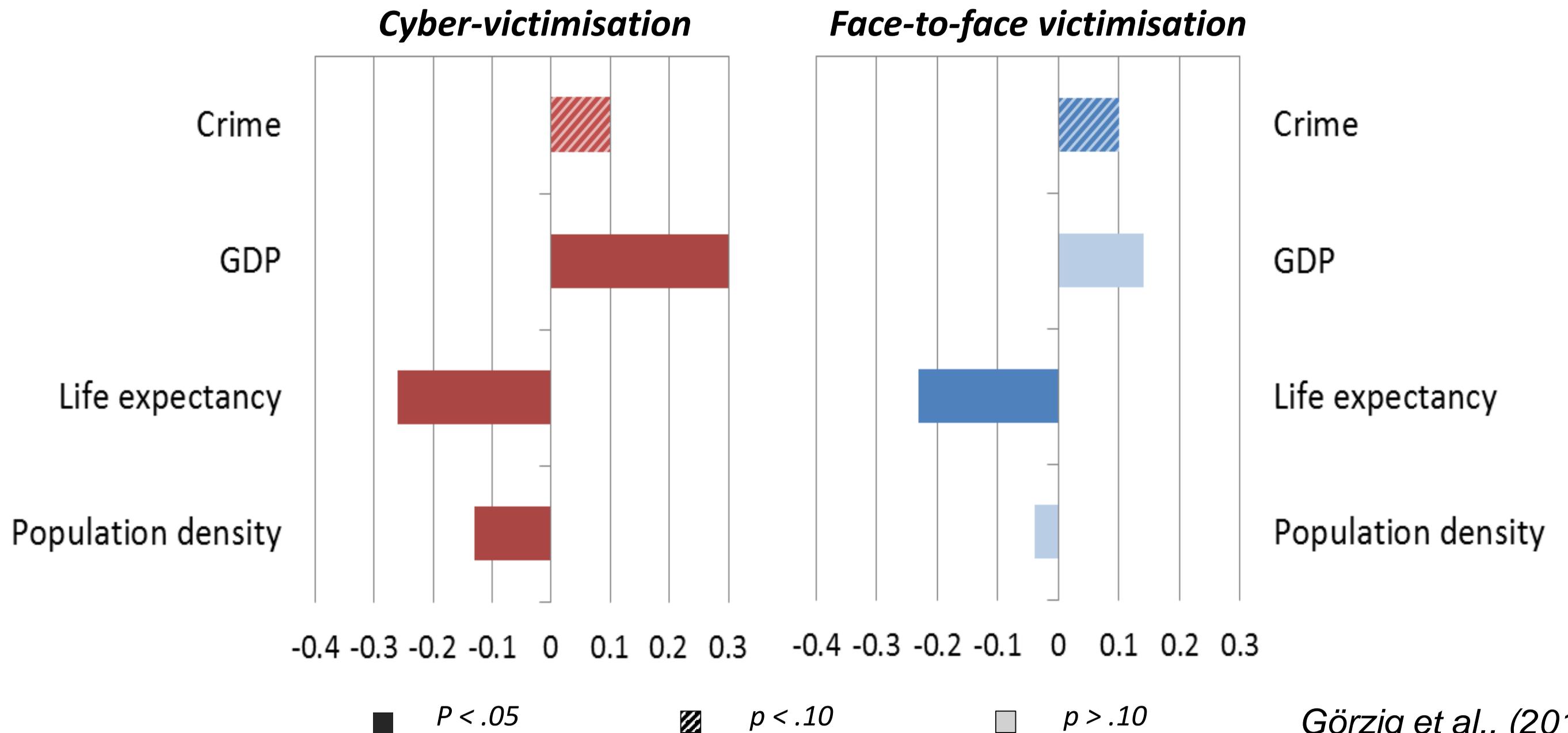


- Unavailable contextual data: Austria, Cyprus, Estonia, Ireland, Lithuania, Slovenia, Turkey
- 18 countries, 179 regions
- 15,813 participants (49.5% female; Age: M = 12.43 years, SD = 2.28)

# Socio-economic stratification



Regression – Step 1 (regional predictors only)  
(Scale: odds Ratios-1; controls: age, gender, SES)



# Conclusions: Contextual factors



- **Crime rates**
  - More crime – more bullying (cyber- and face-to-face)
- **Economic performance (Inequality *between* contexts)**
  - Higher GDP – more cyber victims
    - Competitive society? Technology access & use?
- **Life expectancy (Inequality *within* contexts)**
  - Lower life expectancy – more bullying (cyber- and face-to-face)
- **Population Density (urbanicity)**
  - Higher density – fewer cyber victims
    - Urban areas: diversity, less stigma? Rural areas: if access, more use?
- **Social inequality**
  - Relation between contextual level social inequalities and bullying in general
    - Mixed findings for GDP and population density

# Conclusions



- **The internet is good and bad: children face risky opportunities (e.g., use and digital literacy / safety skills)**
- **Children who are at risk online are the same children who are at risk offline**
- **Children who are involved in cyberbullying are more likely to experience mental health problems and exposure to suicide-related web-content**
  - causality is unclear or bidirectional
  - adolescents may search for information or seek support (Daine et al., 2013)
- **Predictors of risk are not (always) predictors of harm**
- **Some risk experiences can lead to resilience for some**
- **Some children are more vulnerable – across risks, offline and online**
- **Social inequalities on the individual as well as the cultural level impact on risk and coping**

# Implications



- **Do not discourage children/parents from using the internet**
- **Increase children's digital skills, coping and resilience**
  - address socio-demographic groups differentially
  - Offer online opportunities
- **Broader intervention strategies that may address online and offline risks**
- **Interventions addressing one type of risk experience are likely to positively affect others**
- **Online support on websites with suicide-related web-content**
- **Policy initiatives should focus on those likely to experience harm:**
  - girls, younger children
  - psychological and social disadvantaged
- **Address social inequality in the wider cultural environment -> a *big (t)ask***

Thank you! 😊

Dr Anke Görzig



## Literature

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