

# Social media use and cyber-bullying: an international analysis

William Pickett, PhD  
(with Wendy Craig, PhD)

Queen's University at Kingston, Canada



July 2, 2020



JOURNAL OF  
ADOLESCENT  
HEALTH

[www.jahonline.org](http://www.jahonline.org)

Original article

## Social Media Use and Cyber-Bullying: A Cross-National Analysis of Young People in 42 Countries



Wendy Craig, Ph.D.<sup>a</sup>, Meyran Boniel-Nissim, Ph.D.<sup>b</sup>, Nathan King, M.Sc.<sup>c</sup>, Sophie D. Walsh, Ph.D.<sup>d</sup>, Maartje Boer, M.Sc.<sup>e</sup>, Peter D. Donnelly, M.D.<sup>f</sup>, Yossi Harel-Fisch, Ph.D.<sup>g</sup>, Marta Malinowska-Cieřlik, Ph.D.<sup>h</sup>, Margarida Gaspar de Matos, Ph.D.<sup>i</sup>, Alina Cosma, Ph.D.<sup>j</sup>, Regina Van den Eijnden, Ph.D.<sup>k</sup>, Alessio Vieno, Ph.D.<sup>l</sup>, Frank J. Elgar, Ph.D.<sup>m</sup>, Michal Molcho, Ph.D.<sup>n</sup>, Ylva Bjøreld, Ph.D.<sup>o</sup>, and William Pickett, Ph.D.<sup>c,\*</sup>

# Agenda for this Seminar

- Introductions
- Our study opportunity
- Methodology
- Findings
- Implications

# Agenda

- Introductions
- Our study opportunity
- Methodology
- Findings
- Implications

# Who am I?



# Who is Dr Wendy Craig?



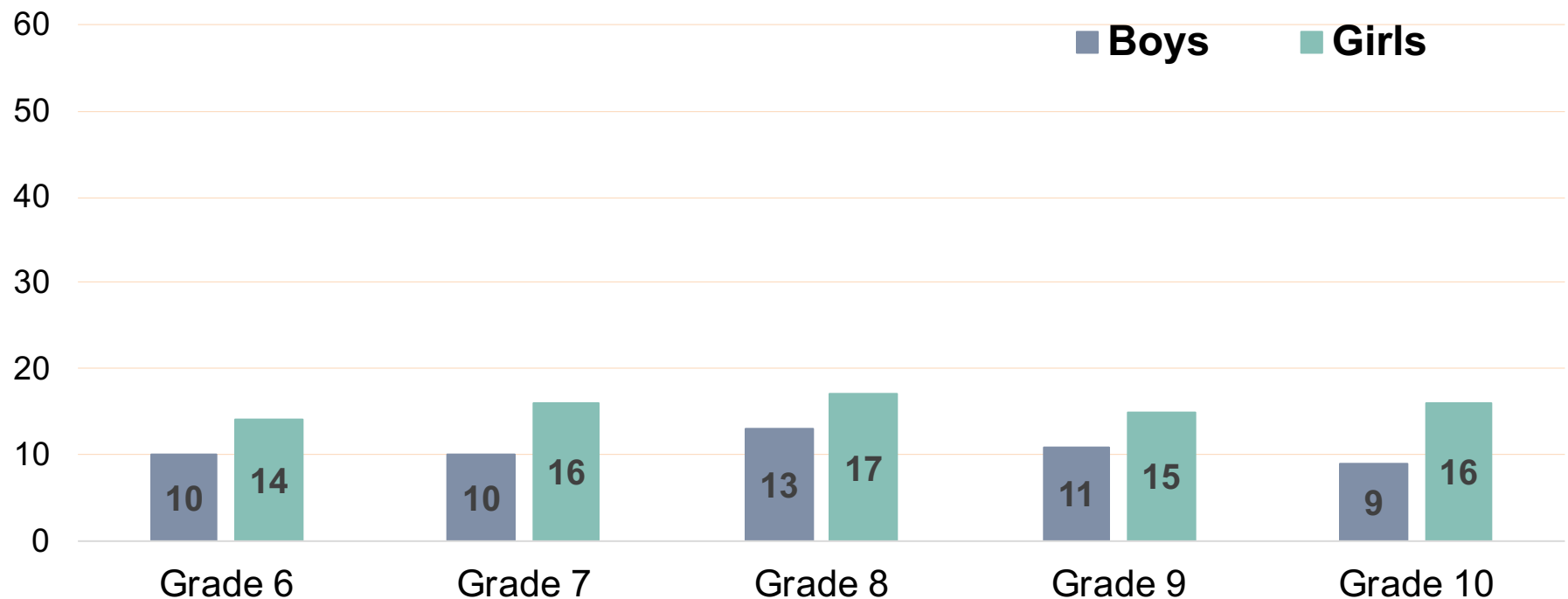
# Our Survey Network



**hbsc**  
HEALTH BEHAVIOUR IN  
SCHOOL-AGED CHILDREN

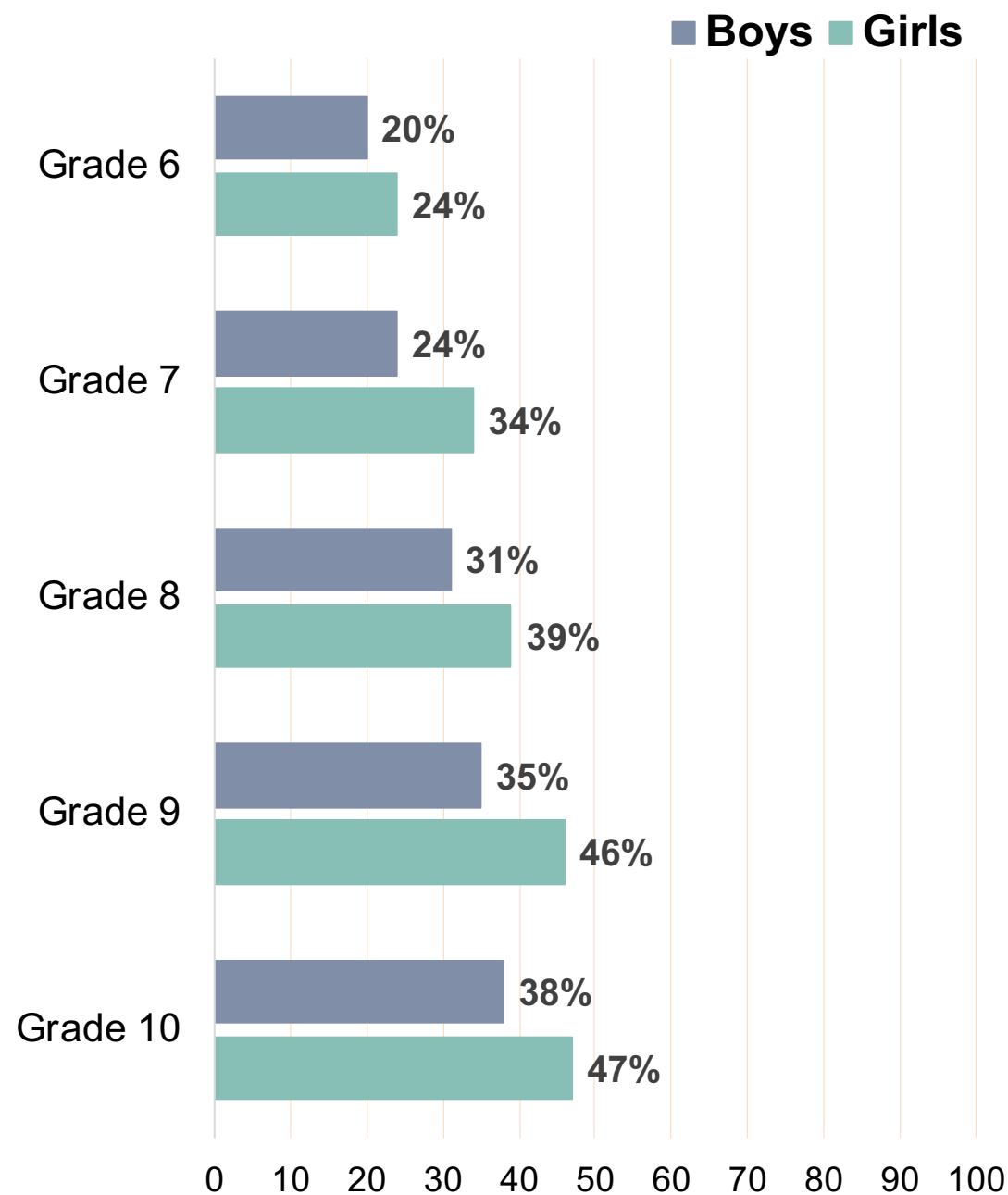


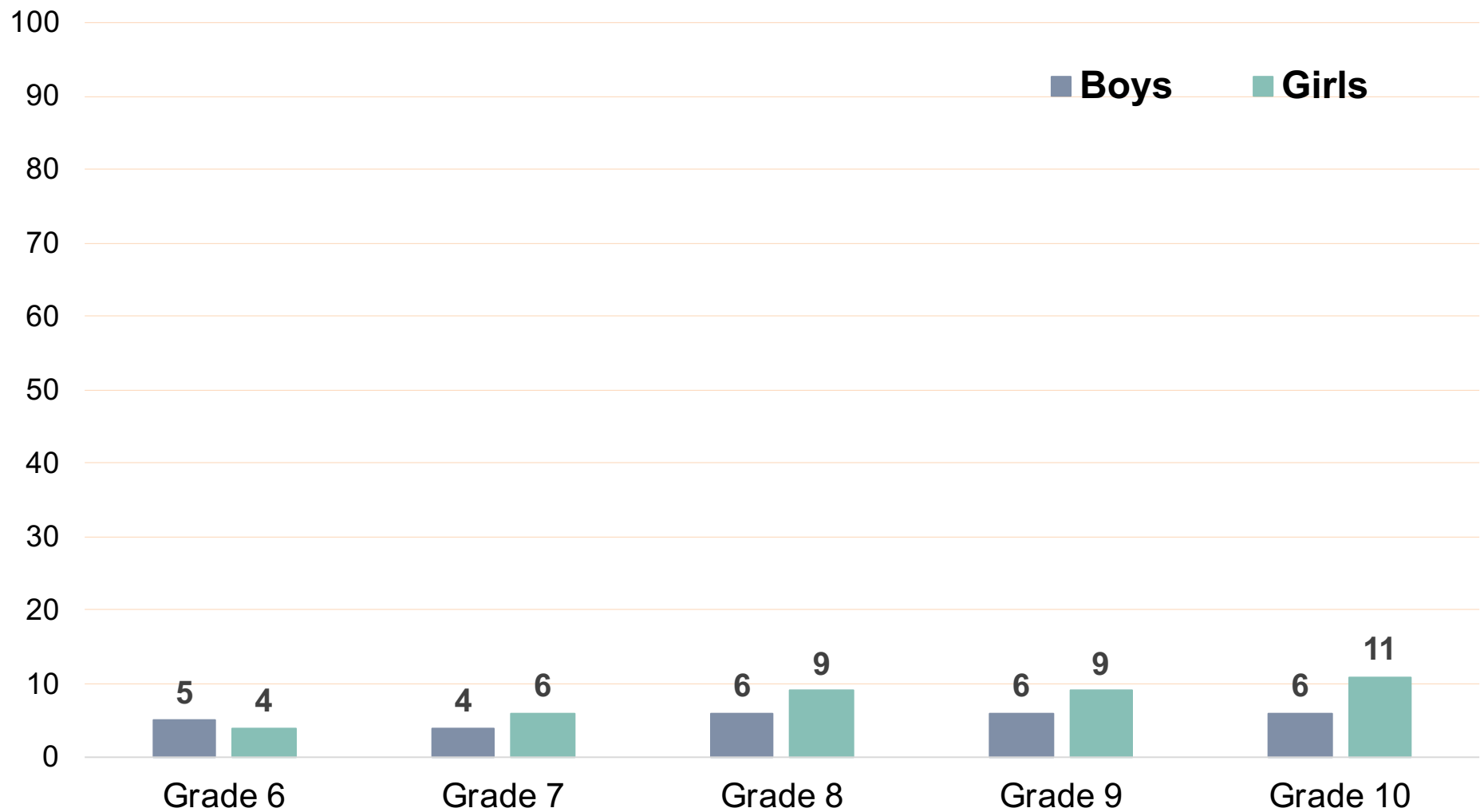
# Victimization by cyberbullying is common in Canada



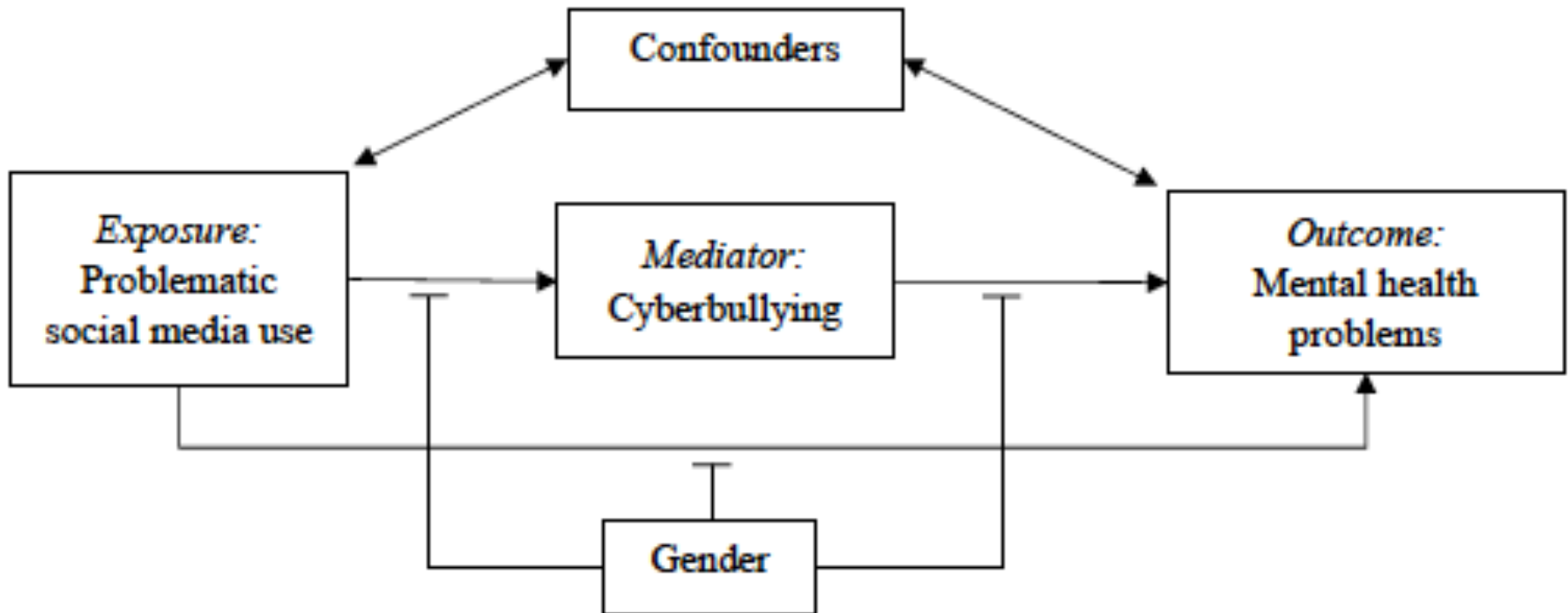


# Intensive social media use in Canada





# Problematic social media use in Canada



## Conceptual Framework

# Agenda

- Introductions
- Our study opportunity
- Methodology
- Findings
- Implications

# Health Behaviour in School-aged Children



# Purpose and Scope

To gain new insight and increase our knowledge and understanding of adolescent health in social and developmental context

# Key Objectives

- to **initiate and sustain** national and international research on young people's health behaviour, health and well being and social contexts

# Key Objectives

- to **initiate and sustain** national and international research on young people's health behaviour, health and well being and social contexts
- to **monitor and to compare** young people's health, health behaviour and social contexts in member countries

# Key Objectives

- to **initiate and sustain** national and international research on young people's health behaviour, health and well being and social contexts
- to **monitor and to compare** young people's health, health behaviour and social contexts in member countries
- to **disseminate** findings to relevant audiences including researchers, policy and practice, and public

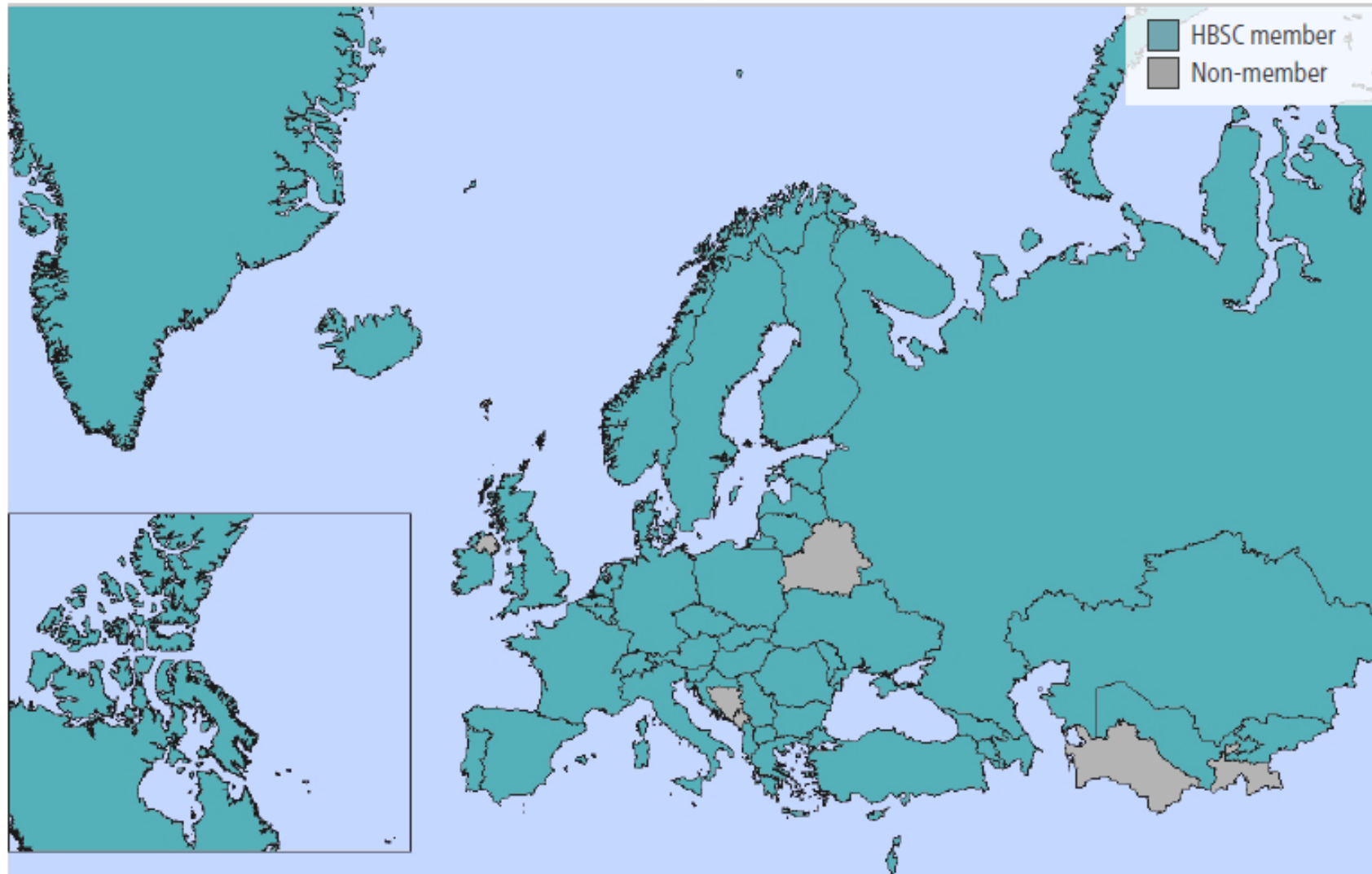
# History

- WHO collaborative study
- 1<sup>st</sup> conducted in 1984
  - Every 4 years since, most recent 2018
  - 10 cycles

# Our International Network

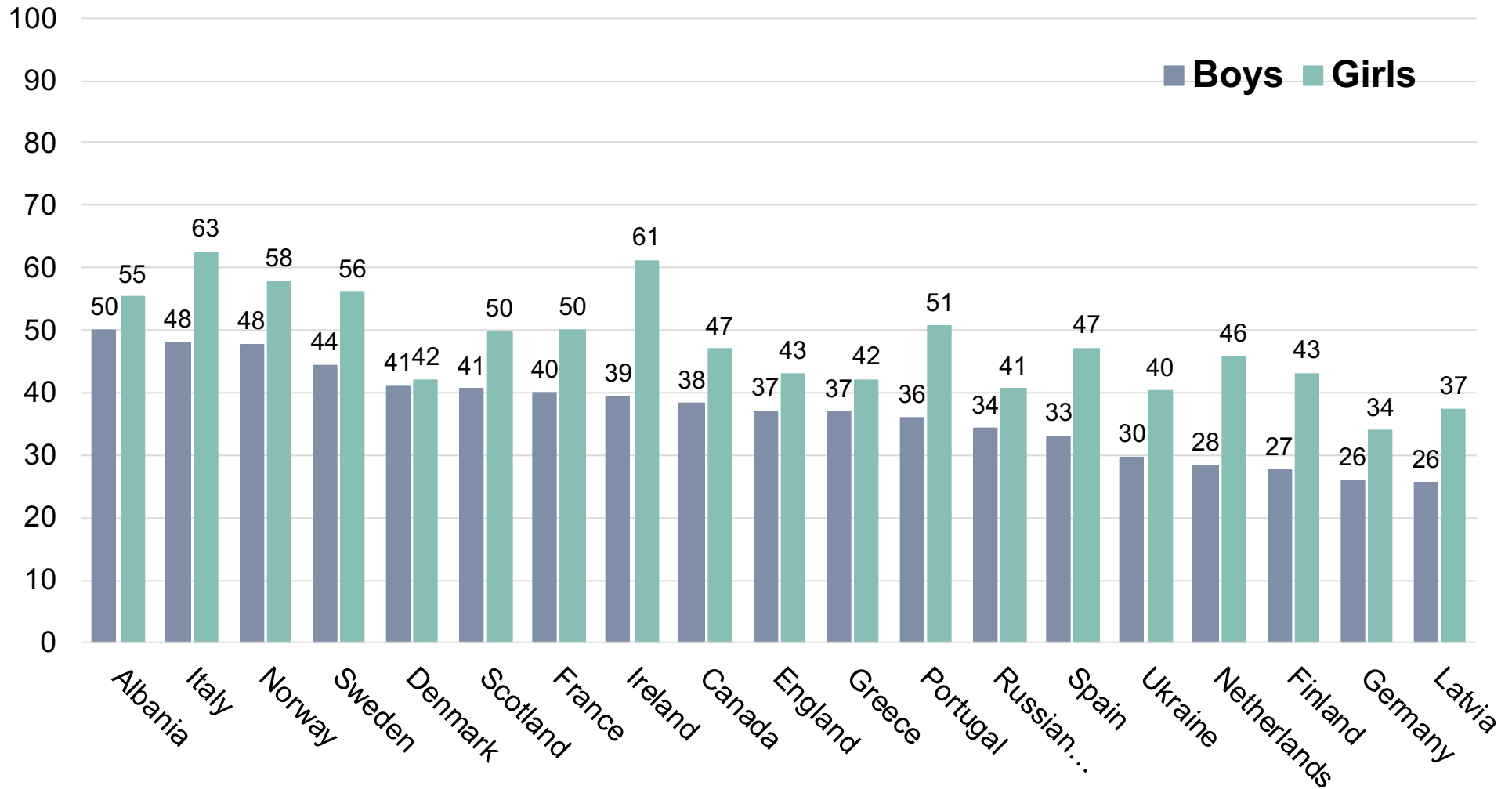
- 50 participating countries
- Primarily Europe
- 400 researchers from different disciplines

# The network



# We have the ability to compare countries

e.g., Intensive social media use



# Our Objectives

- Document engagement in social media use cross-nationally
- Relate indicators of social media use to perpetration of cyberbullying, and victimization
- Look for universal patterns

# Agenda

- Introductions
- Our study opportunity
- Methodology
- Findings
- Implications

# Sampling



# Survey Administration



# Items

- Social media use
- Cyber-bullying
- Covariates

69. How often do you have ONLINE contact with the following people?

	<i>Don't know/ doesn't apply*</i>	<i>Never or almost never</i>	<i>At least every week</i>	<i>Daily or almost daily</i>	<i>Several times each day</i>	<i>Almost all the time throughout the day</i>
a. Close friend(s)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
b. Friends from a larger friend group	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
c. Friends that you got to know through the internet but didn't know before	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
d. Other people than friends (e.g., parents, brothers/sisters, classmates, teachers)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>

## Intensity of Social Media Use Scale

71. During the past year, have you ...

	<i>No</i>	<i>Yes</i>
a. regularly found that you can't think of anything else but the moment you will be able to use social media again?	<sup>1</sup> <input type="checkbox"/>	<sup>2</sup> <input type="checkbox"/>
b. regularly felt dissatisfied because you wanted to spend more time on social media?	<sup>1</sup> <input type="checkbox"/>	<sup>2</sup> <input type="checkbox"/>
c. often felt bad when you could not use social media?	<sup>1</sup> <input type="checkbox"/>	<sup>2</sup> <input type="checkbox"/>
d. tried to spend less time on social media, but failed?	<sup>1</sup> <input type="checkbox"/>	<sup>2</sup> <input type="checkbox"/>
e. regularly neglected other activities (e.g., hobbies, sports) because you wanted to use social media?	<sup>1</sup> <input type="checkbox"/>	<sup>2</sup> <input type="checkbox"/>
f. regularly had arguments with others because of your social media use?	<sup>1</sup> <input type="checkbox"/>	<sup>2</sup> <input type="checkbox"/>
g. regularly lied to your parents or friends about the amount of time you spend on social media?	<sup>1</sup> <input type="checkbox"/>	<sup>2</sup> <input type="checkbox"/>
h. often used social media to escape from negative feelings?	<sup>1</sup> <input type="checkbox"/>	<sup>2</sup> <input type="checkbox"/>
i. had serious conflict with your parents, brother(s) or sister(s) because of your social media use?	<sup>1</sup> <input type="checkbox"/>	<sup>2</sup> <input type="checkbox"/>

## Problematic Social Media Use Scale

58. In the past couple of months, how often have you taken part in cyberbullying?

- ☐ I have not cyberbullied another young person in the past couple of months
- ☐ Once or twice
- ☐ 2 or 3 times a month
- ☐ About once a week
- ☐ Several times a week

## Cyberbullying

# Analysis



# Ethics



# Agenda

- Introductions
- Our study opportunity
- Methodology
- Findings
- Implications

# The Sample

# International Sample

Number of countries reporting	42	
Total participants	180,919	
By country		
Median	3,715	
Minimum	1,446	(Albania)
Maximum	11,155	(Wales)
By gender – no. (%)		
Boys	86,981	(48.1)
Girls	93,938	(51.9)
By age group – no. (%)		
11yrs	56,219	(31.1)
13yrs	62,661	(34.6)
15yrs	62,039	(34.3)

# Prevalence of Cyberbullying

# Cyberbullying

Prevalence per 100 children  
Within countries by age group and gender

	11yrs			13yrs			15yrs		
	Min	Med	Max	Min	Med	Max	Min	Med	Max
<b>Boys</b>									
Victimization	4.0	12.5	27.5	2.2	11.9	24.3	3.2	11.3	28.5
Perpetration	1.8	7.6	26.7	3.1	10.3	28.8	3.6	11.8	31.4
<b>Girls</b>									
Victimization	3.8	12.7	24.5	6.4	13.9	27.8	5.3	12.7	20.9
Perpetration	0.7	6.1	14.0	2.5	7.2	19.1	1.6	7.5	19.4

# Main Observations

- Large variations across countries
- Gender patterns:
  - Boys perpetrate more
  - Girls are victimized more
- Developmental patterns:
  - Cyber-victimization stable by age
  - Perpetration increases with age

# Prevalence of Social Media Use

# Social Media Use

## Prevalence per 100 children

	11yrs			13yrs			15yrs		
	Min	Med	Max	Min	Med	Max	Min	Med	Max
<b>Boys</b>									
Intense	14	29	47	17	32	49	18	37	52
Problematic	1	6	25	3	6	18	2	6	18
Strangers	1	6	14	2	8	13	3	9	13
<b>Girls</b>									
Intense	13	29	49	17	42	60	21	46	64
Problematic	1	5	15	4	8	20	4	9	19
Strangers	1	3	8	3	6	12	2	6	14

# Main Observations

- Large variations across countries
- Gender patterns:
  - Girls more intense and problematic
  - Boys more talking to strangers
- Developmental patterns:
  - Problematic increases with age, girls
  - Intense increases with age, boys and girls
  - Strangers increases with age, boys and girls

# Regression Analyses

**Table 4.** Bivariate and adjusted Relative Risk estimates for victimization by, and perpetration of cyber-bullying associated with three indicators of social media use in 42 countries, HBSC study, 2018 (weighted n= 166,647 (79,486 Boys and 87,161 Girls) from 41 countries included in the overall analyses)

		Victimization by Cyber-Bullying									Perpetration of Cyber-Bullying								
		Overall Prevalence		Overall Relative Risk				No. Countries Reporting**			Overall Prevalence		Overall Relative Risk				No. Countries Reporting**		
				Bivariate		Adjusted*		Adjusted RR*					Bivariate		Adjusted*		Adjusted RR*		
		No.	(%Yes)	RR	(95% CI)	RR	(95% CI)	>1	1	<1	No.	(%Yes)	RR	(95% CI)	RR	(95% CI)	>1	1	<1
<b>Boys</b>																			
Intense use																			
No		54287	(10.7)	1.00	ref	1.00	ref	8	34	0	54287	(9.5)	1.00	ref	1.00	ref	24	18	0
Yes		25199	(13.9)	1.29	(1.24-1.35)	1.14	(1.10-1.19)				25199	(14.2)	1.48	(1.42-1.54)	1.31	(1.26-1.36)			
Problematic use																			
No		74424	(11.0)	1.00	ref	1.00	ref	20	22	0	74424	(10.2)	1.00	ref	1.00	ref	22	19	1
Yes		5062	(23.2)	2.12	(2.00-2.24)	1.35	(1.28-1.42)				5062	(23.2)	2.25	(2.12-2.39)	1.44	(1.37-1.52)			
Frequent contact with strangers																			
No		73848	(11.2)	1.00	Ref	1.00	ref	10	32	0	73848	(10.4)	1.00	ref	1.00	ref	16	26	0
Yes		5638	(18.6)	1.64	(1.55-1.75)	1.22	(1.16-1.29)				5638	(19.0)	1.79	(1.69-1.91)	1.34	(1.27-1.41)			
<b>Girls</b>																			
Intense use																			
No		53628	(11.9)	1.00	ref	1.00	ref	25	17	0	53628	(5.6)	1.00	ref	1.00	ref	20	22	0
Yes		33533	(17.2)	1.44	(1.39-1.49)	1.30	(1.25-1.34)				33533	(9.9)	1.72	(1.63-1.80)	1.39	(1.32-1.45)			
Problematic use																			
No		80211	(12.6)	1.00	ref	1.00	ref	29	13	0	80211	(6.2)	1.00	ref	1.00	ref	36	6	0
Yes		6950	(28.9)	2.26	(2.16-2.37)	1.48	(1.42-1.55)				6950	(19.6)	3.10	(2.92-3.28)	1.84	(1.74-1.95)			
Frequent contact with strangers																			

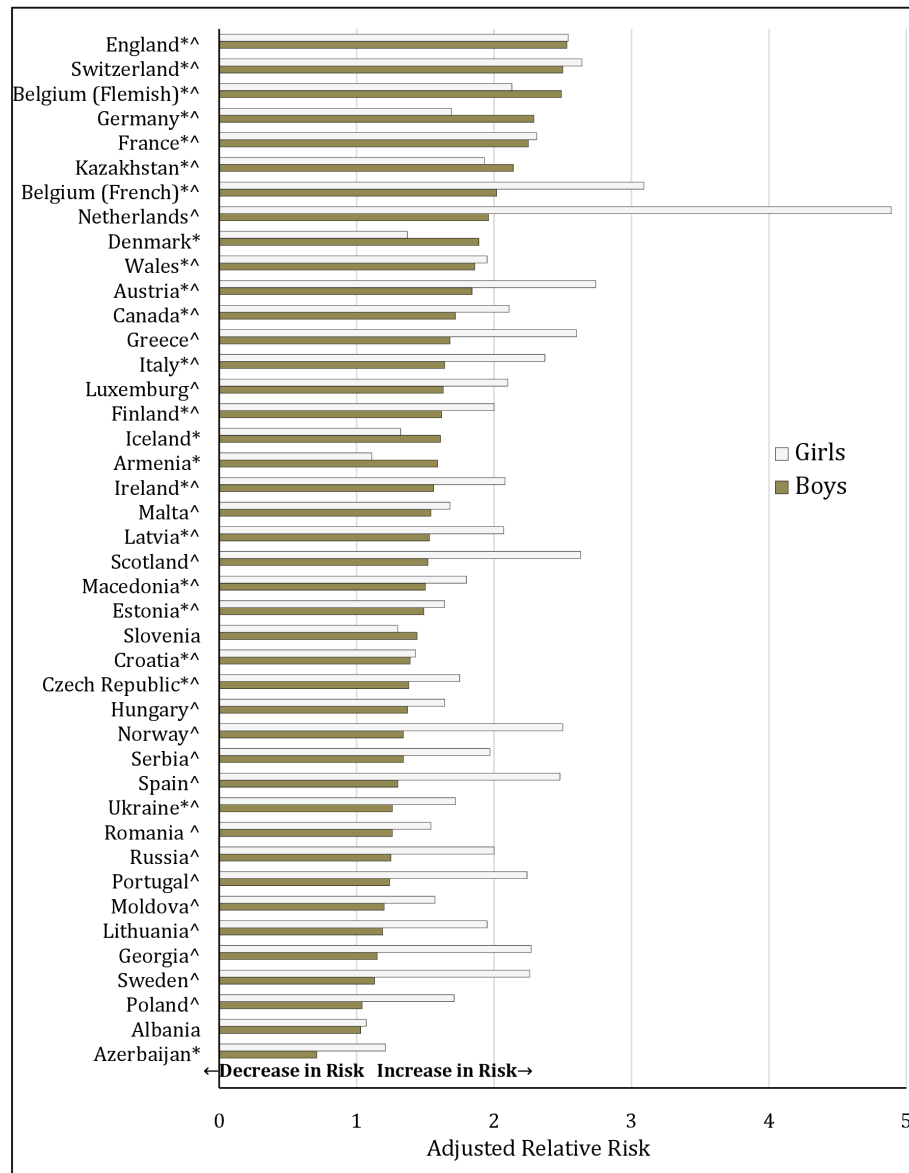
Don't look at this output

# Main Observations

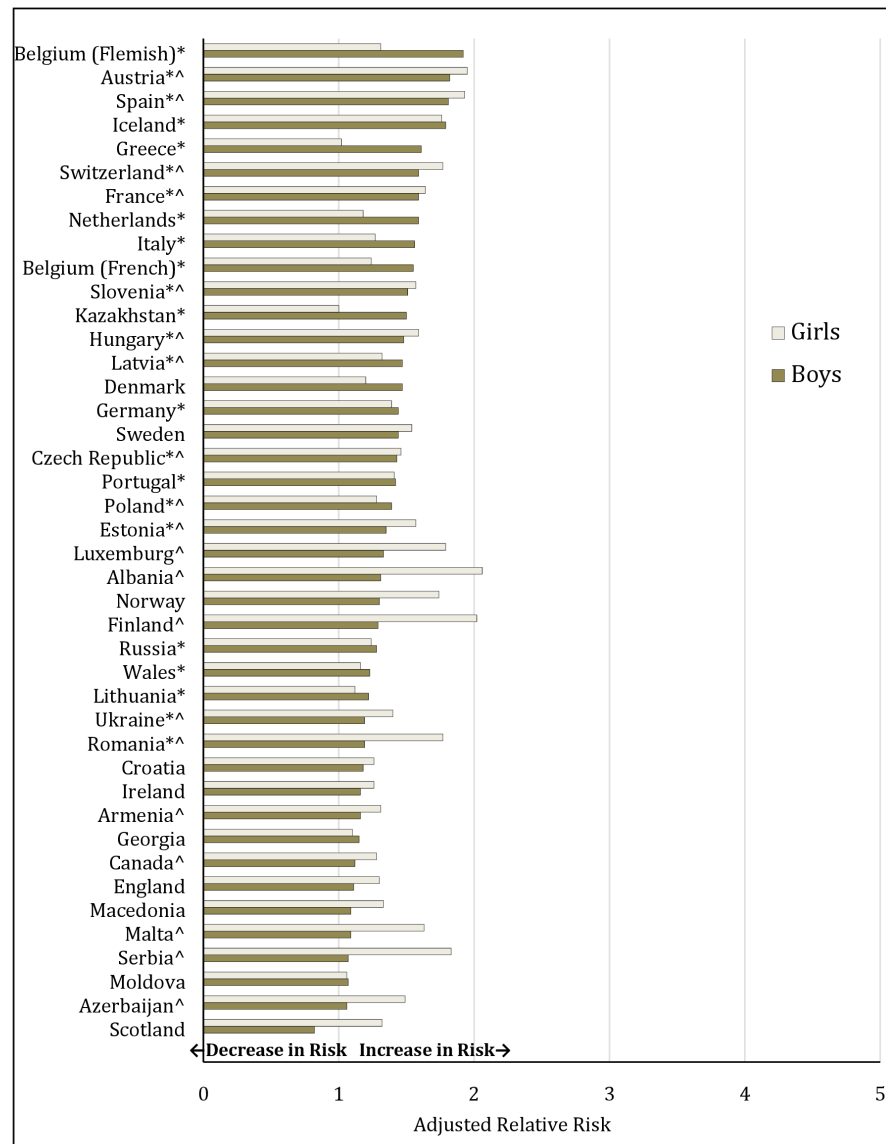
- All 3 indicators of social media use:
  - Associated with cyberbullying
- Associations were strongest:
  - Problematic social media use
  - Perpetration vs. victimization
  - Girls vs. boys

# Adjusted RR:

## Perpetration related to problematic social media use



# Adjusted RR: Perpetration related to intense social media use



# Main Observations

- All 3 indicators of social media use:
  - Associated with cyberbullying
- Associations were strongest:
  - Problematic social media use
  - Perpetration vs. victimization
  - Girls vs. boys

# Strengths and Limitations



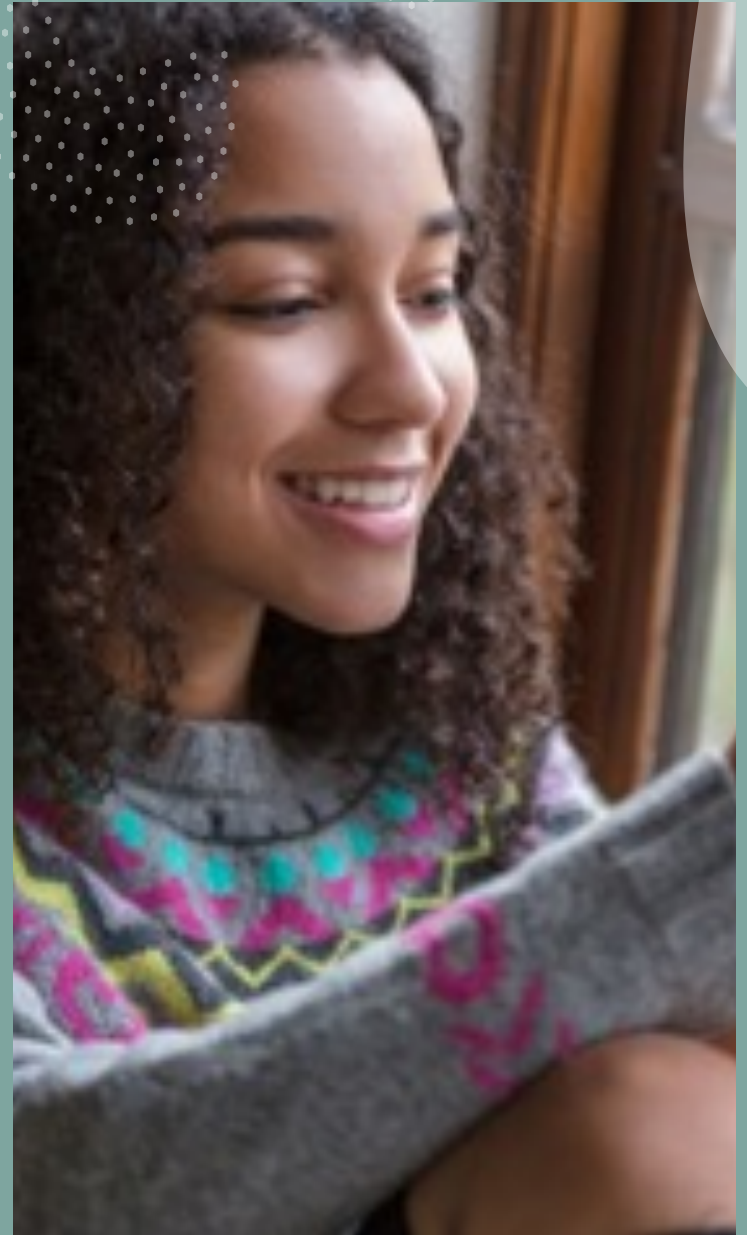
# Agenda

- Introductions
- Our study opportunity
- Methodology
- Findings
- Implications

**Social media use is  
a normative  
behaviour, and  
follows gendered  
and developmental  
patterns**



**Social media use in itself is not a negative behaviour, but its misuse is a growing adolescent health problem**



**Social media use  
provides new  
opportunities for  
aggression**



Please recognize that  
some negative effects  
of social media use  
are:

- (1) consistent, and
- (2) not innocuous



# Online Resources

## **Special issue: Journal of Adolescent Health**

[Understanding Adolescent Health and Wellbeing in  
Context: Cross-National Findings from the Health  
Behaviour in School-aged Children Study](#)

# Social media use and cyber-bullying: an international analysis



William Pickett, PhD  
(with Wendy Craig, PhD, lead author)

Queen's University at Kingston, Canada

July 2, 2020