



UNIVERSITY OF  
CAMBRIDGE

Institute of Criminology

Public Seminar Series

# **‘Protecting Children against Bullying and Cyberbullying’**

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University of Córdoba



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graph LR; A[Bullying] --> B[Cyberbullying]; C[Consequences]; D[Risk and protective factors]; E[Interventions against bullying and cyberbullying]; F[New horizons in bullying research];
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Bullying



Cyberbullying

Consequences

Risk and protective factors

Interventions against bullying and cyberbullying

New horizons in bullying research

# School bullying and cyberbullying

**bullying**



- Among peers
- Repeated
- Intentional
- Long-term
- Defined roles
- Power imbalance

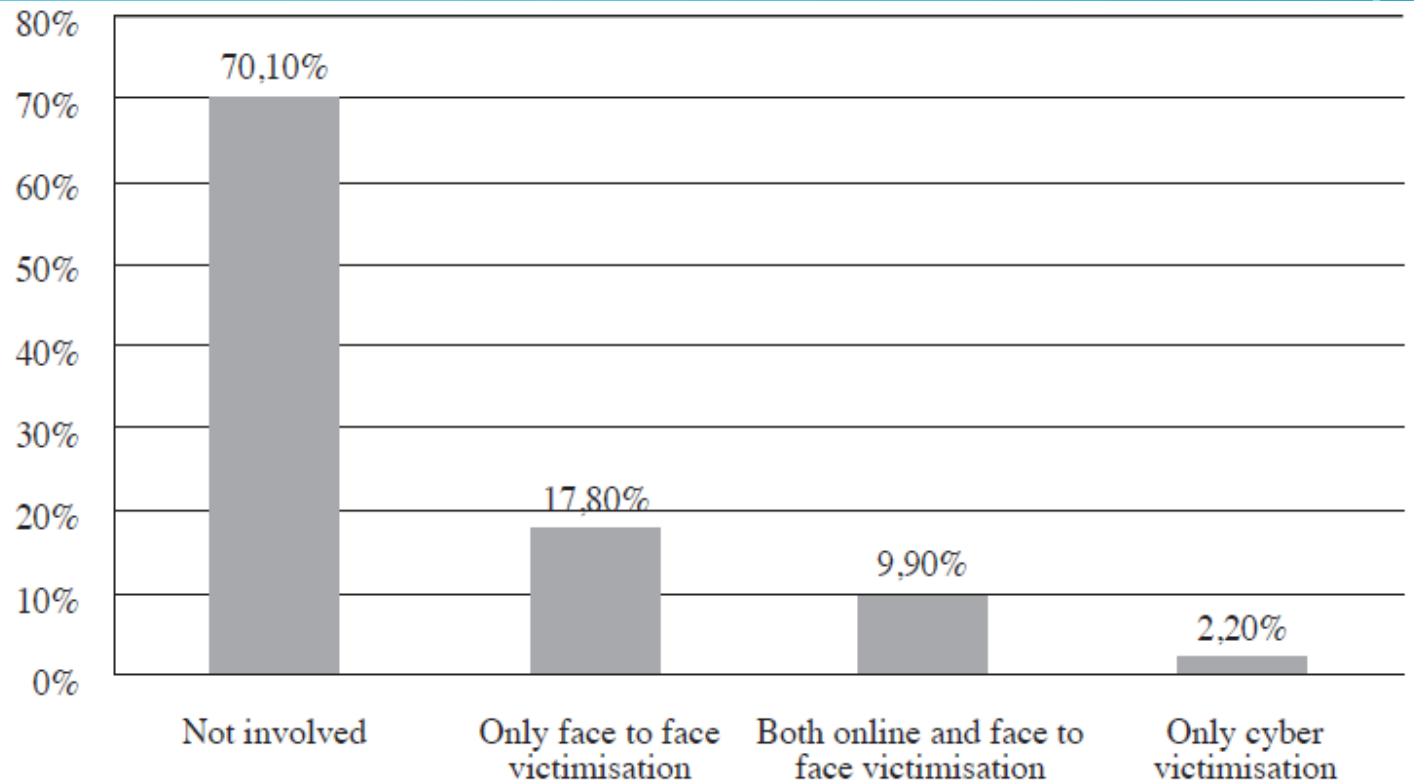


- Bullying using electronic devices
  - Intentional
  - Repeated (under debate)
- Perpetrated by known and unknown people
  - In school and outside of schools (24/7)
  - Power imbalance (under debate)

**cyberbullying**

# Is cyberbullying a form of bullying?

There is a strong relationship between bullying and cyberbullying ( $r_s > .40$ )



**Figure 1.** Percentages of students involved in different types of victimisation

Prevalence of cyberbullying and bullying roles analyzed jointly.

	Uninvolved in cyberbullying	Cybervictim	Cyberperpetrator	Cyberbully/victim
Uninvolved in bullying	27.1%	0.8%	0.4%	1.4%
Bullying victim	23.3%	4.8%	1.1%	1.4%
Bullying perpetrator	4.1%	0.2%	1.6%	0.8%
Bully/victim	12.3%	7%	2.2%	11.6%

# Prevalence of bullying and cyberbullying

Prevalence rates of bullying and cyberbullying vary greatly depending on:



Definitions

Cut-off points  
(frequency, timeframe)

Instruments

A systematic review of international studies showed:

- Bullying victimisation (35%) and cybervictimisation (15%)
- Bullying perpetration (36%) and cyberperpetration (16%)

Modecki et al. (2014)

A systematic review of Spanish studies focused on prevalence rates of cyberbullying found:

- median prevalence of victimization of 24.4% (range 4.6% to 78.31%)
  - median prevalence of perpetration 15.5% (range 2% to 56.5%)
    - Bully/victims (between 1.2% and 46%)

Zych, Ortega-Ruiz, and Marín-López (2016)

Age 11

Uninvolved

Victim

Incipient

Bully/

**Bullying decreases with age**

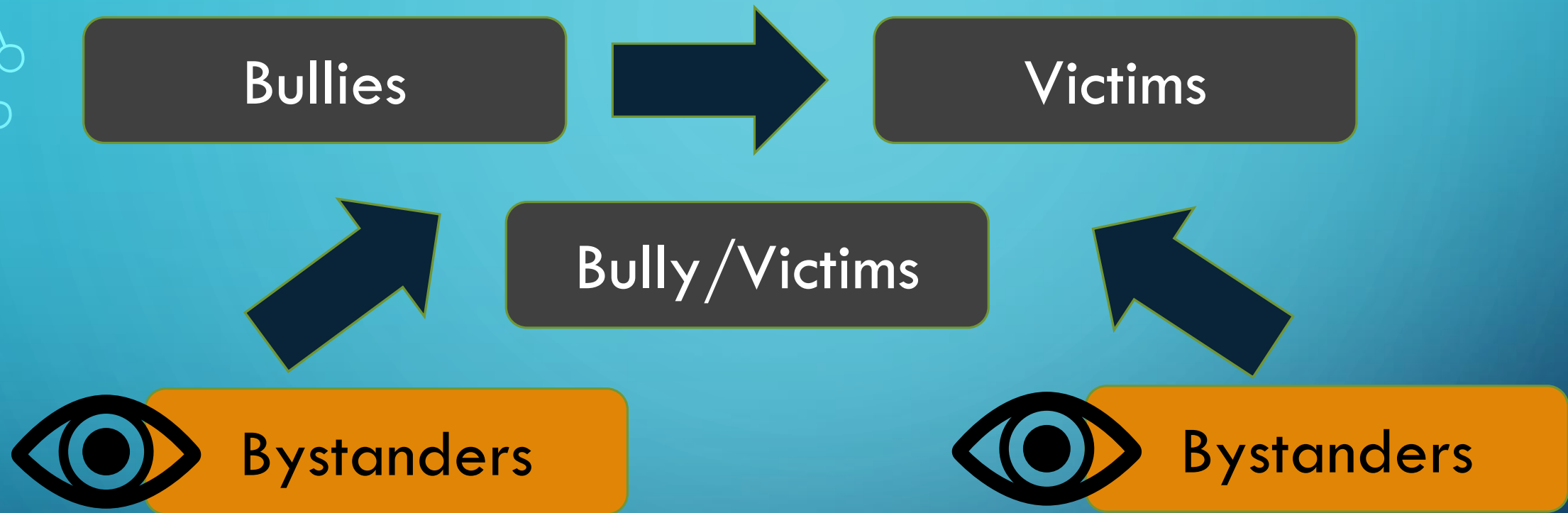
**Victims remain victims or transition to uninvolved**

**Bullies remain bullies or transition to uninvolved**

**Bully/victims are the least stable group, the most aggressive and with low percentages of transitions to uninvolved**



# Bullying is a complex psychosocial phenomenon



Bullying is a group phenomenon (Salmivalli et al., 2010), not only an individual behaviour. Bullies might achieve high social status in a peer group. Bystanders frequently reinforce the bully. Bystanders might sometimes help the victim.

# Bullying is a complex psycho-social phenomenon



Security in schools and in the communities is related to less bullying (Bradshaw et al., 2013; Holt et al., 2014)

Involving families in school anti-bullying programmes was an effective component of these interventions (Farrington & Ttofi, 2009)

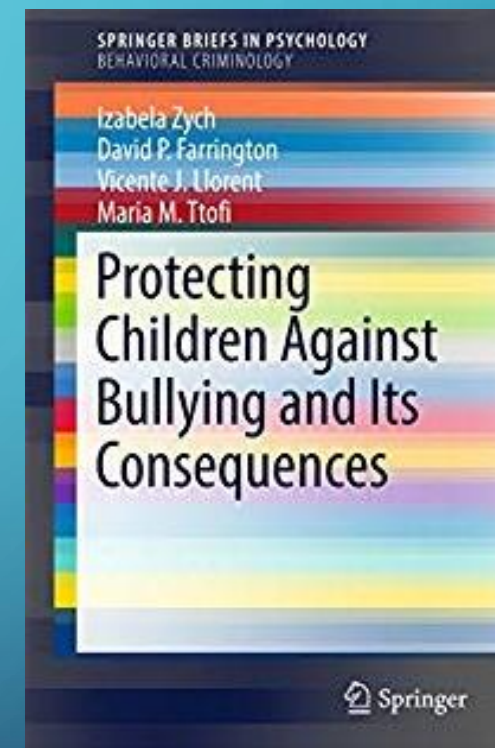
Positive peer influence was found to be related to less antisocial behaviour (Cook et al., 2010)

Individual factors such as empathy, social and emotional competencies and moral-disengagement were found to be related to bullying (Zych et al., 2017)

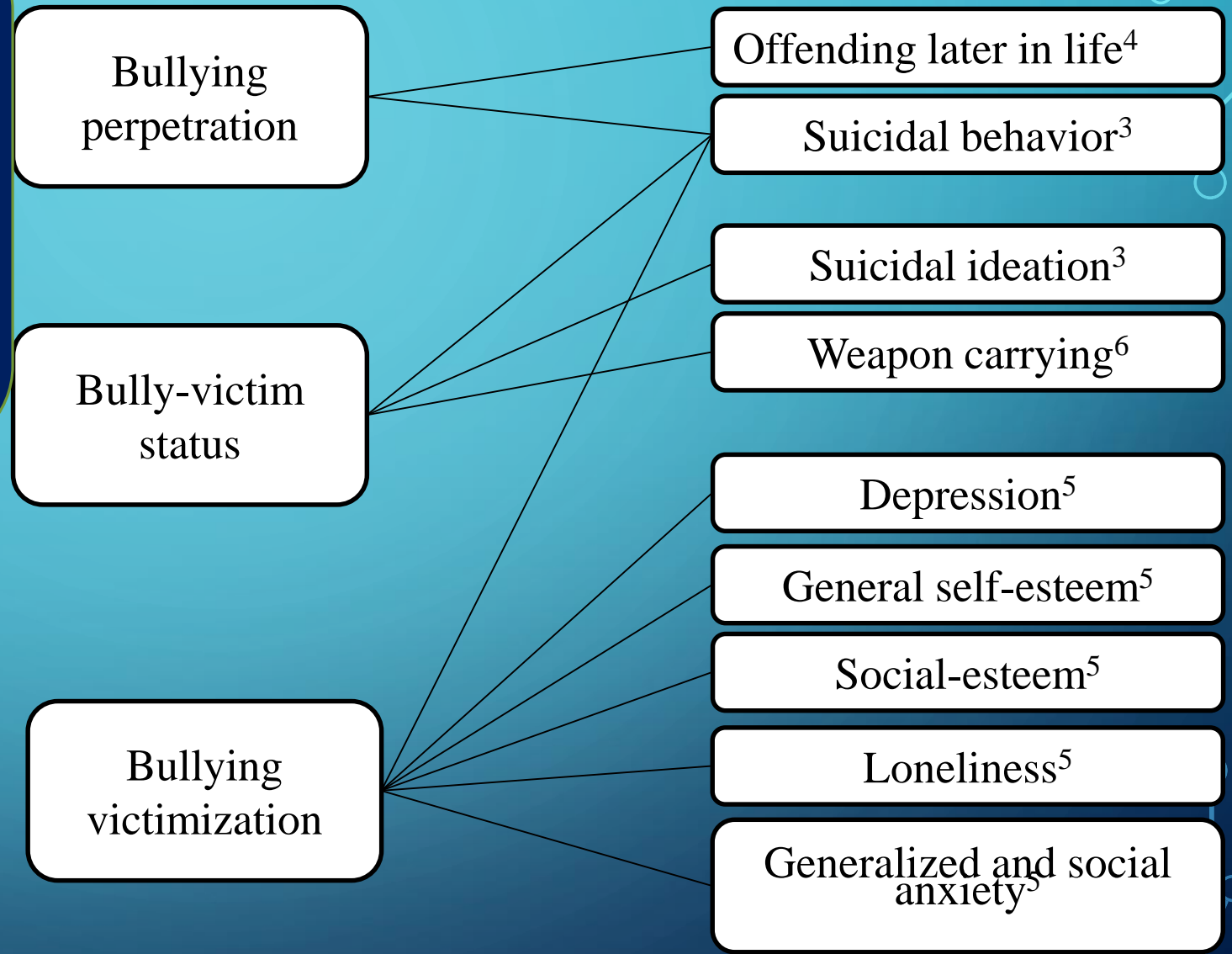
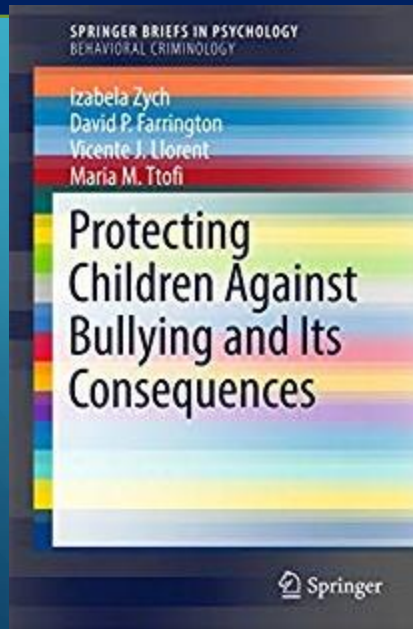
Bullying and cyberbullying are frequently analyzed from an ecological and systemic perspective (e.g., Baldry et al., 2015; Ortega et al., 2010) inspired on Bronfenbrenner's ecological theory (1994)



# Bullying and cyberbullying have some very serious consequences



Involvement in any bullying role has some very serious short and long term consequences. Nevertheless, more research on the topic is needed because most of the studies are cross-sectional and consequences are defined on a theoretical basis (tested as correlates)



<sup>1</sup>(Cook, et al., 2010)<sup>2</sup>(Gini, Pozzoli, & Hymel, 2014); <sup>3</sup>(Holt et al., 2015); <sup>4</sup>(Ttofi, Farrington, Losel, & Loeber, 2011); <sup>5</sup>(Hawker & Boulton, 2000); <sup>6</sup>(van Geel, Vedder, & Tanilon, 2014)

# Cyberbullying

## Smaller effect

## Larger effect

### *Cyber-perpetration*

Kowalski and et al. (2014):

- Anxiety (+),
- Depression (+),
- Life satisfaction (-),
- Self-esteem (-),

Kowalski and et al. (2014):

- Drug and alcohol use (+)

### *Cyber-victimization*

Kowalski and et al. (2014):

- Depression (+),
- Self-esteem (-),
- Anxiety (+),
- Loneliness (+),
- Life satisfaction (-),
- Conduct problems (+),
- Somatic symptoms (+),
- Emotional problems (+),
- Drug and alcohol use (+)

Kowalski and et al. (2014):

- Stress (+),
- Suicidal ideation (+)

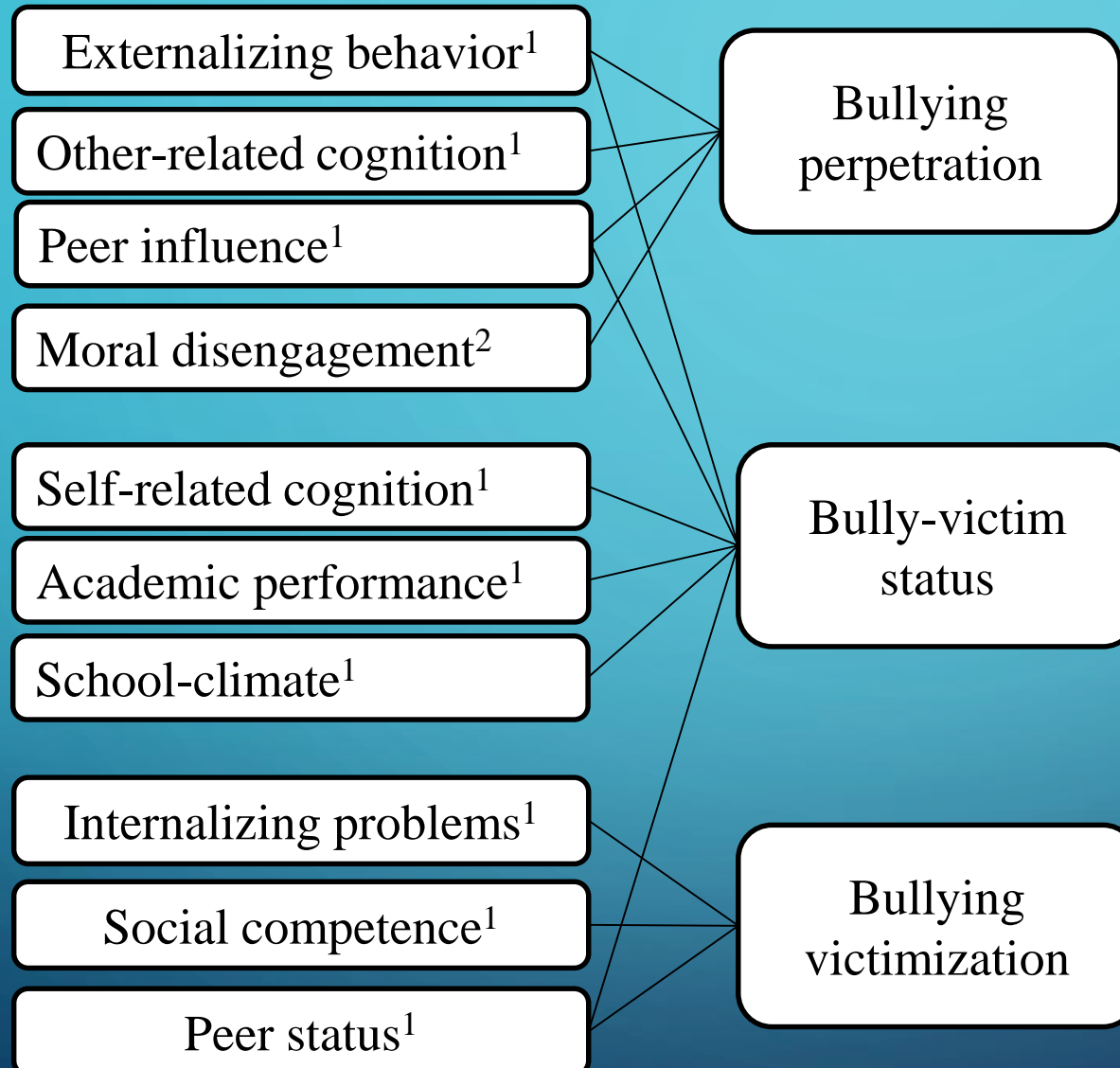
Note: (+) = positive effect, (-) = negative effect

Some studies focused on long-term consequences find that bullying victimisation is related to depression later in life (Ttofi, Farrington, Lösel, & Loeber, 2011), perpetration is related to offending later in life (Ttofi, Farrington, Losel, & Loeber, 2011), and perpetration is related to drug use later in life (Ttofi, Farrington, Losel, Crago, & Theodorakis, 2016) described in several meta-analyses.

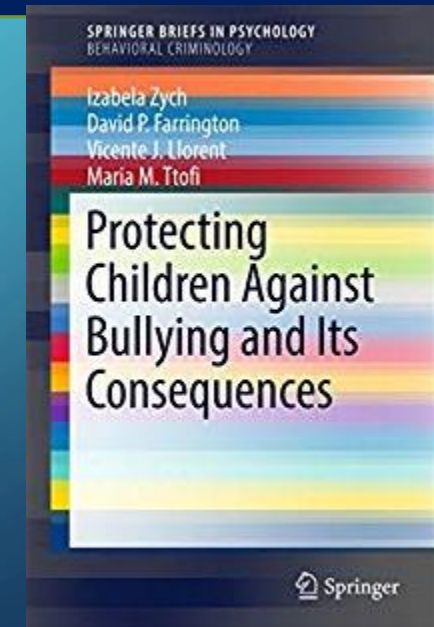
There are many studies on the nature and dynamics of bullying. Many studies have focused on related variables conceptualised as risk factors.

However, fewer studies have focused on the possible predictors of bullying or cyberbullying (e.g., Farrington & Baldry, 2010). It is still necessary to advance knowledge regarding the way in which children and adolescents can be protected against bullying and cyberbullying.

## Risk/protective factors



Several risk and protective factors against bullying have been identified. Again, more research on the topic is needed because most of the studies are cross-sectional and consequences are defined on a theoretical basis (tested as correlates)



<sup>1</sup>(Cook, et al., 2010)<sup>2</sup>(Gini, Pozzoli, & Hymel, 2014); <sup>3</sup>(Holt et al., 2015); <sup>4</sup>(Ttofi, Farrington, Losel, & Loeber, 2011); <sup>5</sup>(Hawker & Boulton, 2000); <sup>6</sup>(van Geel, Vedder, & Tanilon, 2014)



# Cyberbullying

Smaller effect

Larger effect

Very strong effect

## *Cyber-perpetration*

Kowalski et al. (2014):

- Frequency of Internet use (+),
- Anger (+) ,
- Risky online behavior (+),
- Narcissism (+),
- Empathy (-),
- School climate (-)
- School safety (-)

Gini, Pozzoli, and Hymel (2014), Kowalski et al. (2014):

- moral disengagement (+)

Kowalski et al. (2014):

- Normative beliefs about aggression (+)

Kowalski et al. (2014):

- Cybervictimization (+)

## *Cyber-victimization*

Kowalski et al. (2014):

- Frequency of Internet use (+),
- Moral disengagement (+),
- Risky online behavior (+)
- Hyperactivity (+)
- School safety (-)
- school climate (-)

Note: (+) = positive effect, (-) = negative effect



## Protective factors against bullying and cyberbullying: A systematic review of meta-analyses

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<sup>b</sup> University of Cambridge, United Kingdom

This systematic review included 18 meta-analyses focused on factors that could potentially protect children from being involved in different bullying and cyberbullying roles.

37 effect sizes for protective factors against bullying victimization

28 against cybervictimization

21 against bullying perpetration

24 against cyberperpetration

16 against being a bully/victim

1 for defenders

1 against being a cyberbully/victim

## Median effect sizes for community and school, family, peer and individual protective factors in different bullying roles

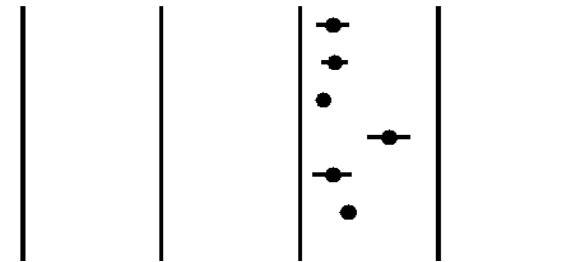
	Victimization			Perpetration				Bully/ victims
	Face to face	Cyber	Overall	Face to face	Cyber	Overall		
<b>Community and school</b>	OR = 1.80	OR = 1.73	OR = 1.77	<b>OR = 2.10</b>	OR = 1.58	OR = 1.61		<b>OR = 3.41</b>
<b>Family</b>	OR = 1.41	OR = 1.29	OR = 1.38	OR = 1.50	OR = 1.42	OR = 1.42		OR = 1.82
<b>Peer</b>	OR = 1.65	OR = 1.80	OR = 1.65	OR = 1.47	<b>OR = 1.67</b>	OR = 1.57		<b>OR = 4.98</b>
<b>Individual</b>								OR = 2.10
<b>Academic</b>	OR = 1.16	OR = 1.24	OR = 1.20	<b>OR = 2.18</b>	OR = 1.39	OR = 1.78		
<b>Low ICT use</b>	-	<b>OR = 2.02</b>	-	-	<b>OR = 2.10</b>	-		
<b>Self-oriented personal competencies</b>	<b>OR = 2.18</b>	<b>OR = 2.13</b>	OR = 2.18	OR = 1.40	OR = 1.44	OR = 1.44		
<b>Other-oriented social competencies</b>	OR = 1.34	OR = 1.02	OR = 1.20	<b>OR = 1.80</b>	OR = 1.58	OR = 1.66		

## School and community factors

	Outcome	Statistics for each study		
		Odds ratio	Lower limit	Upper limit
Community factors (3)	Victimization	1.734	1.333	2.255
Positive school climate (3)	Victimization	1.800	1.464	2.214
Positive school climate (9)	Cybervictimization	1.494	1.370	1.630
Positive school climate (4)	Victimization	4.438	3.155	6.244
Positive school climate (6)	Cybervictimization	1.734	1.264	2.379
School safety (9)	Cybervictimization	2.266	2.067	2.484

## Victimization

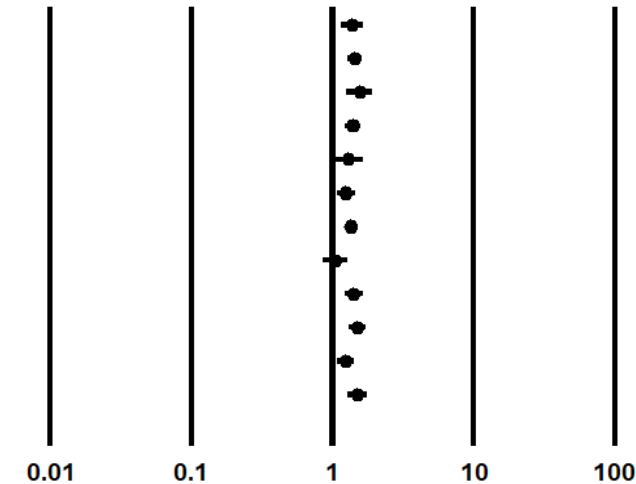
Odds ratio and 95% CI



## Family factors

	Outcome	Statistics for each study		
		Odds ratio	Lower limit	Upper limit
High SES (14)	Victimization	1.368	1.159	1.614
Positive family/home environment(3)	Victimization	1.440	1.292	1.605
Positive family environment (6)	Cybervictimization	1.550	1.265	1.900
Parental interaction (2)	Cybervictimization	1.388	1.246	1.546
Parental mediation (2)	Cybervictimization	1.290	1.033	1.611
Parental monitoring (9)	Cybervictimization	1.244	1.078	1.435
Parental supervision (10)	Victimization	1.337	1.243	1.438
Parental ICT use control (9)	Cybervictimization	1.037	0.862	1.248
Authoritative parenting (10)	Victimization	1.412	1.221	1.632
Parental involvement and support (10)	Victimization	1.491	1.313	1.693
Parental communication (10)	Victimization	1.243	1.095	1.412
Parental warmth (10)	Victimization	1.491	1.290	1.724

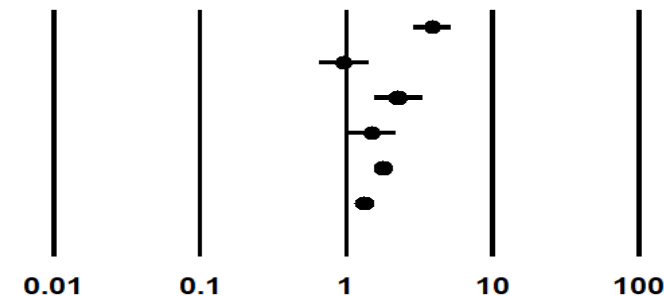
Odds ratio and 95% CI



## Peer factors

	Outcome	Statistics for each study		
		Odds ratio	Lower limit	Upper limit
Peer status (3)	Victimization	3.878	2.915	5.159
Peer influence (3)	Victimization	0.964	0.662	1.406
Peer influence (6)	Cybervictimization	2.266	1.569	3.273
Social support (4)	Victimization	1.494	1.033	2.161
Social support (8)	Victimization	1.800	1.635	1.982
Perceived support (9)	Cybervictimization	1.338	1.228	1.458

Odds ratio and 95% CI

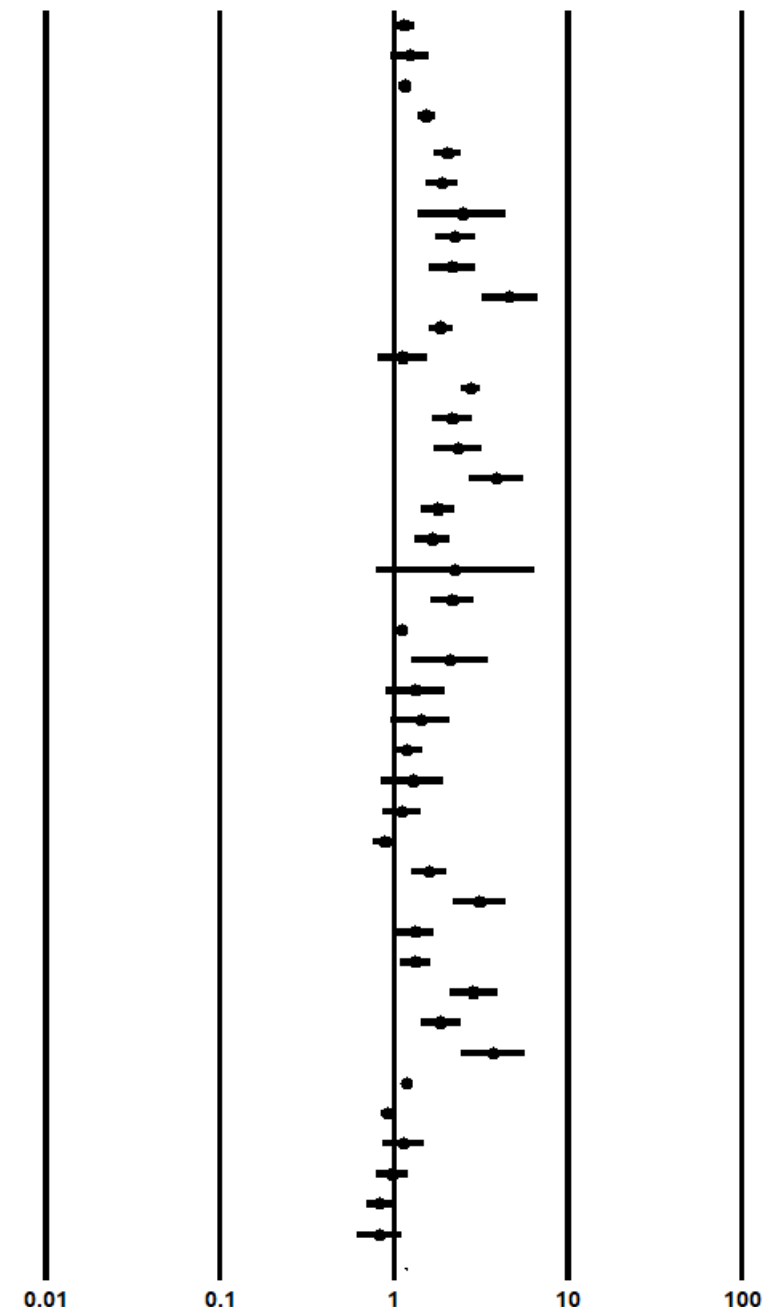


## Individual factors

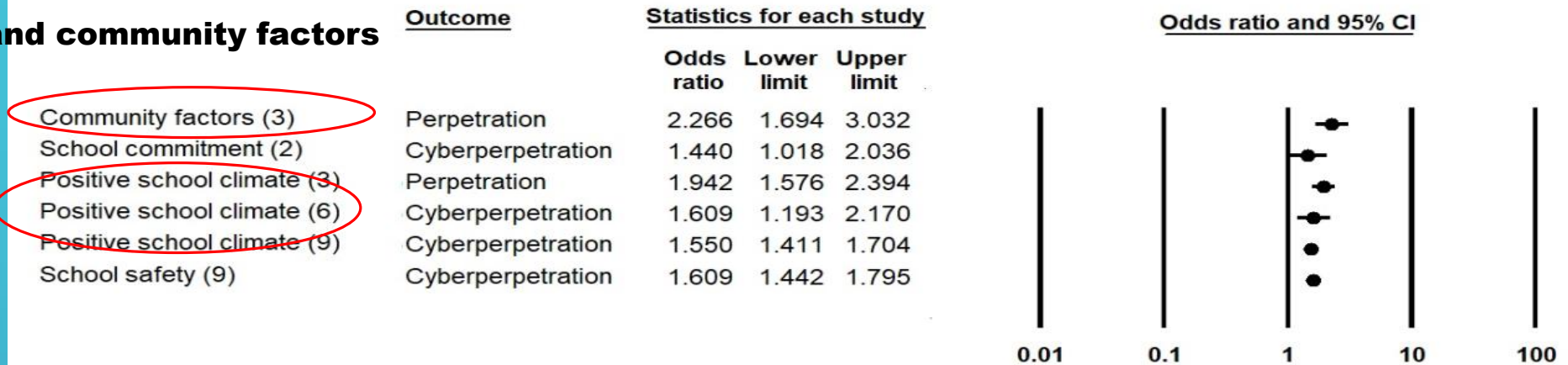
		Outcome	Statistics for each study		
			Odds ratio	Lower limit	Upper limit
Academic	Academic performance (3)	Victimization	1.156	1.017	1.315
	Academic achievement (9)	Cybervictimization	1.244	0.968	1.597
	Academic achievement (12)	Victimization	1.165	1.085	1.251
	Academic achievement (13)	Victimization	1.550	1.390	1.729
ICT Use	Low frequency of ICT use (2)	Cybervictimization	2.018	1.710	2.381
	Low frequency of ICT use (9)	Cybervictimization	1.870	1.519	2.302
	Low frequency of cyber activities (6)	Cybervictimization	2.452	1.380	4.358
Self-related personal competencies	Self-esteem (2)	Cybervictimization	2.266	1.760	2.918
	Self-esteem (7)	Victimization adjusted	2.180	1.608	2.955
	Self-esteem (7)	Victimization unadjusted	4.648	3.229	6.690
	Self-esteem (9)	Cybervictimization	1.870	1.612	2.169
	Self-esteem (12)	Victimization	1.130	0.830	1.539
	Self-esteem (15)	Victimization	2.766	2.454	3.116
	Self-esteem (5)	Cybervictimization	2.180	1.696	2.802
	Social self-concept (7)	Victimization adjusted	2.357	1.731	3.209
	Social self-concept (7)	Victimization unadjusted	3.878	2.744	5.481
	Self-related cognitions (3)	Victimization	1.800	1.464	2.214
	Self-related cognition (6)	Cybervictimization	1.670	1.335	2.090
	Life satisfaction (5)	Cybervictimization	2.266	0.806	6.373
	Life satisfaction (9)	Cybervictimization	2.180	1.657	2.866
	Efficacy in defending (2)	Cybervictimization	1.115	1.038	1.197
	Emotional management (2)	Cybervictimization	2.097	1.273	3.453
	Openness (11)	Victimization	1.338	0.908	1.971
	Conscientiousness (11)	Victimization	1.440	0.982	2.111
Other-related social competencies	Low extraversion (11)	Victimization	1.199	0.982	1.464
	Agreeableness (11)	Victimization	1.290	0.864	1.926
	Other-related cognition (6)	Cybervictimization	1.115	0.869	1.431
	Other related cognitions (3)	Victimization	0.897	0.767	1.049
	Social problem solving (3)	Victimization	1.609	1.283	2.017
	Social competence (3)	Victimization	3.129	2.237	4.378
	Social intelligence (9)	Cybervictimization	1.338	1.056	1.696
	Prosociality (1)	Victimization Overt adjusted	1.338	1.094	1.636
	Prosociality (1)	Victimization Overt unadjusted	2.881	2.123	3.910
	Prosociality (1)	Victimization Relational adjusted	1.870	1.442	2.425
	Prosociality (1)	Victimization Relational unadjusted	3.712	2.463	5.595
	Prosociality (9)	Cybervictimization	1.199	1.141	1.261
	Empathy (9)	Cybervictimization	0.930	0.854	1.013
	Cognitive empathy (16)	Victimization	1.135	0.866	1.488
	Affective empathy (16)	Victimization	0.989	0.805	1.216
	Affective empathy (17)	Cybervictimization	0.830	0.706	0.975
	Cognitive empathy (17)	Cybervictimization	0.830	0.623	1.106

Odds ratio and 95% CI

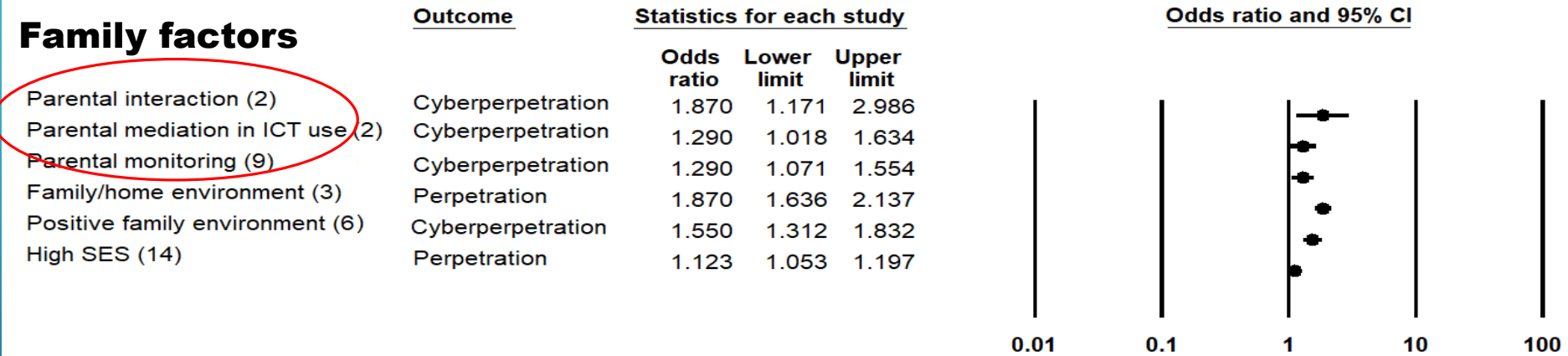
## Victimization



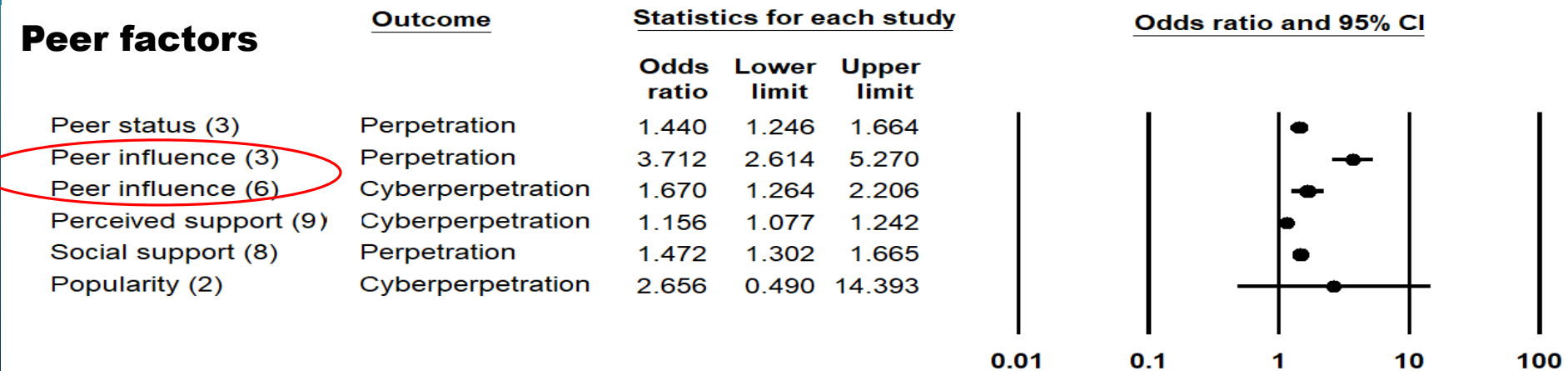
## School and community factors



## Family factors

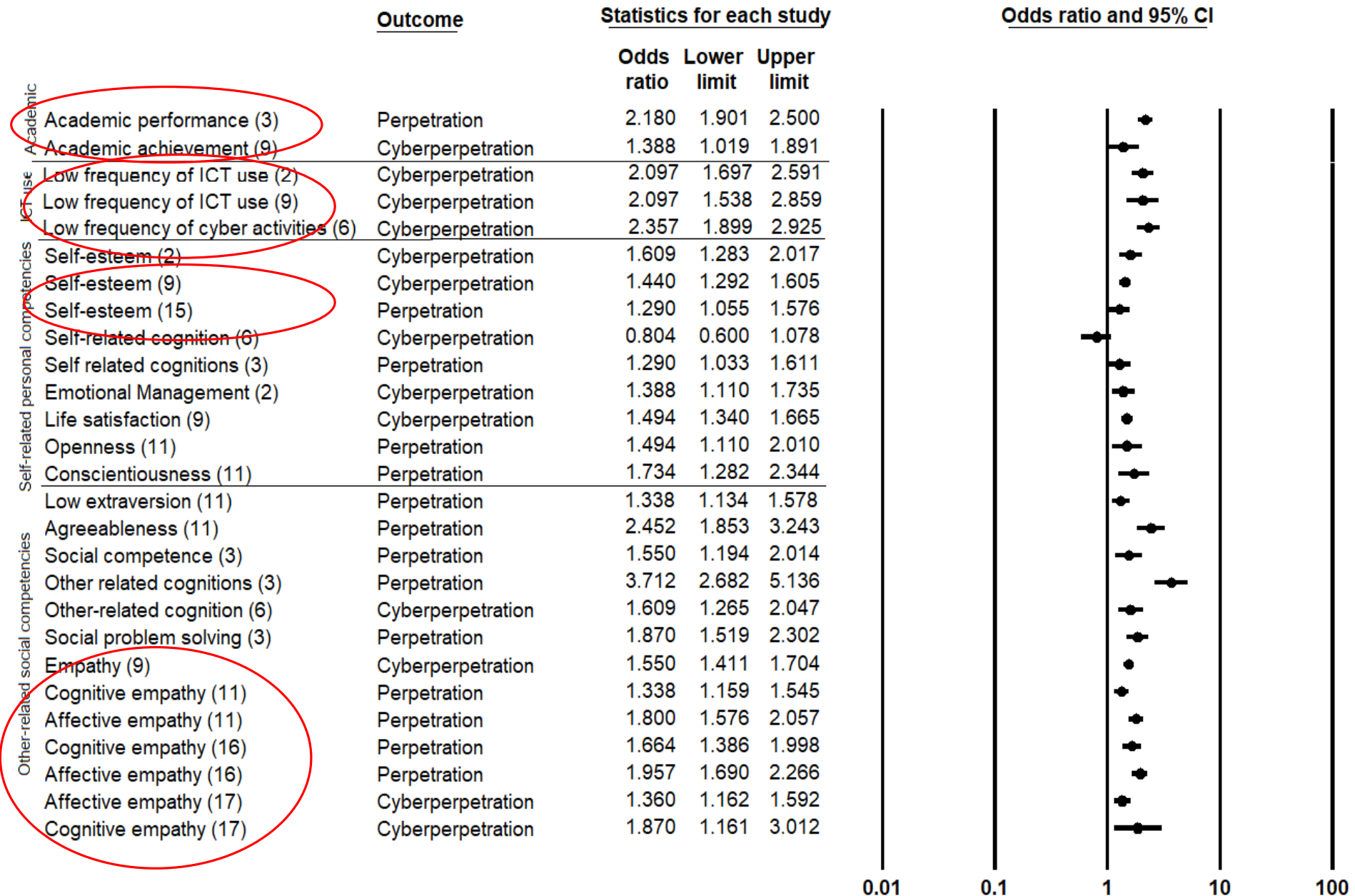


## Peer factors





## Individual factors

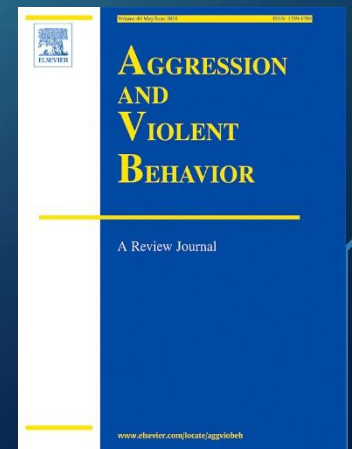




## A developmental approach to cyberbullying: Prevalence and protective factors (**Robin Kowalski, Susan Limber, Annie McCord**)

This narrative review focused on prevalence and protective factors against cyberbullying (perpetration and victimisation) at different ages.

The review uses an ecological approach. The authors concluded that cyberbullying is present in all the age groups and that several risk and protective factors seem to be age-specific.

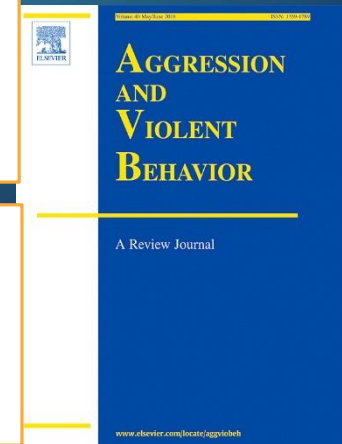


## Consistency of gender differences in bullying in different cross-cultural surveys (**Peter K. Smith, Leticia López-Castro, Susanne Robinson, Anke Görzig**)

Authors reviewed the biggest cross-national surveys (e.g., EU Kids Online) focusing on gender differences in bullying.

Boys are more involved in bullying perpetration in all the age groups, with a curvilinear relation: bigger differences with respect to females in childhood, smaller differences in early adolescence and bigger differences in late adolescence. Findings regarding victimization were inconsistent, in general with more male victims, but with differences across countries and age groups.

They concluded that research on protective factors and interventions should take into account these gender differences.



## Parents and bullying behavior: a systematic review (**Annalaura Nocentini, Giada Fiorentini, Ludovica Di Paola, Ersilia Menesini**)

A systematic review of family factors in relation to bullying

**Contextual**

e.g. domestic violence

**Relational**

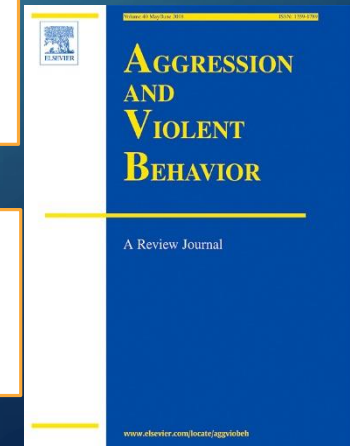
e.g. child abuse

**Individual**

e.g. parental attitude  
towards bullying

After systematic searches and applying inclusion and exclusion criteria, 155 studies were included.

Contextual and relational factors are related to bullying. The role of individual factors is less clear.



**Standing up to bullying: A social ecological review of peer defending in offline and online contexts (Laura J. Lambe, Victoria Della Cioppa, Irene K. Hong, Wendy M. Craig)**

Using an ecological approach, this study focused on individual, peer, family and school correlates of defending

This was a systematic review that included 25 studies after the systematic searches and applying the inclusion/exclusion criteria

They concluded that defenders are:

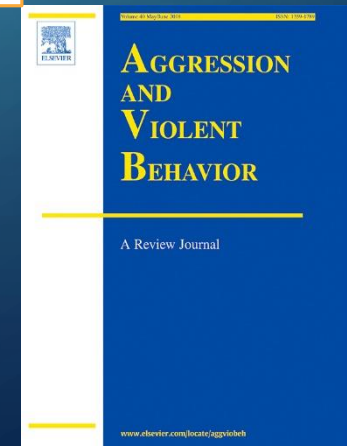
**Girls**

**High on empathy**

**Low on moral-  
disengagement**

**Popular**

**Good relationships with parents, teachers and schools**



A literature review of protective factors associated with homophobic bullying and its consequences among children and adolescents (**Dorothy Espelage et al.**)

This systematic review on protective factors against homophobic bullying included 25 studies after systematic searches and applying inclusion/exclusion criteria.

Some of the protective factors were:

**Individual**

Social and emotional competencies

**Family**

Parental support and involvement

**Peer**

Norms and values in the peer grupo regarding sexual orientation

**School**

Positive school climate

Are children involved in cyberbullying low on empathy? A systematic review and meta-analysis of research on empathy versus different cyberbullying roles (**Izabela Zych, Anna C. Baldry, David P. Farrington, Vicente J. Llorent**)

A systematic review and a meta-analysis on empathy in different cyberbullying roles that included 25 studies after conducting systematic searches and applying the inclusion/exclusion criteria

**Perpetrators are low on affective and cognitive empathy**

OR = 1.36

OR = 1.87

**Perpetrators are low on empathy after controlling for covariates**

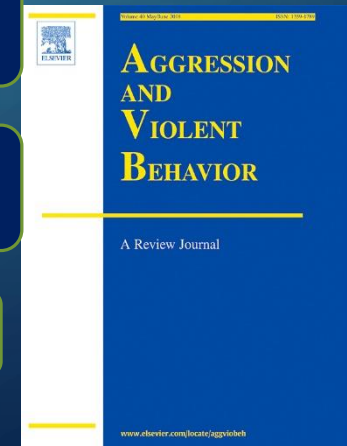
OR = 1.3

**Victimisation was not related to overall empathy**

OR = .94

**Victims could be high on affective empathy**

OR = .83



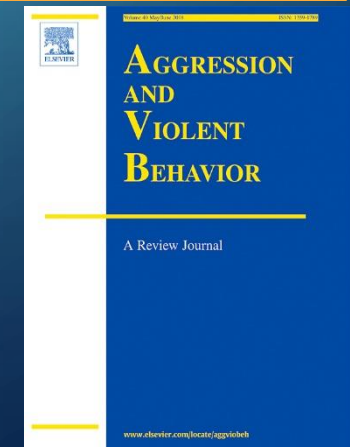


Moral domain as a risk and protective factor against bullying. An integrating perspective review on the complexity of morality (**Eva Romera, J. A. Casas, Olga Gómez, Rosario Ortega-Ruiz**)

A narrative review focused on morality and bullying, including concepts such as moral knowledge, moral sensitivity, reasoning, emotion, motivation and identity, and group norms

The authors concluded that morality is a complex phenomenon and an interplay among all its elements should be analysed to understand its relation to bullying

All these elements of morality can protect children against bullying



Special Issue: “Bullying and Cyberbullying: Protective factors and effective Interventions”  
Zych, Ttofi, and Farrington (in press)

## Cyberhate: A review and content analysis of intervention strategies (**Catherine Blaya**)

This narrative review focuses on a specific type of aggressive behaviour called cyberhate. There is a certain overlap between cyberhate and cyberbullying.

The author suggests three intervention areas such as improving laws, technology and education

Interventions against cyberhate are still needed. By now, they mostly focused on empowering the victims and there are no specific interventions aimed at decreasing perpetration



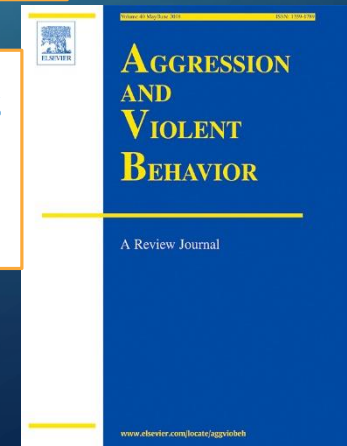
Special Issue: "Bullying and Cyberbullying: Protective factors and effective Interventions"  
Zych, Ttofi, and Farrington (in press)

## School-based anti-bullying interventions for adolescents in low- and middle income countries: A systematic review (**Bhagya Sivaraman, Lucy Bowes**)

This was a systematic review of anti-bullying interventions in low and middle income countries that included three studies after conducting systematic searches and applying inclusion/exclusion criteria

Results of these studies were inconclusive. There were doubts retarding the programme implementations.

Anti-bullying programmes in low and middle income countries are urgently needed



## Interventions against bullying and cyberbullying

Research shows that interventions against bullying and cyberbullying can be effective. These programmes are being conducted around the world.

Special Issue: “Bullying and Cyberbullying: Protective factors and effective Interventions” Zych, Ttofi, and Farrington (in press)

Evaluating the effectiveness of school-bullying prevention programs: An updated meta-analytical review (**Hannah Gaffney, Maria Ttofi, David Farrington**)

100 primary studies with 103 independent effect sizes; most of them were experimental or quasi-experimental studies. An overall effect size showed that these programmes were effective in reducing bullying perpetration by around 19% to 20%. They were also effective in reducing bullying victimisation by around 15% to 16%.



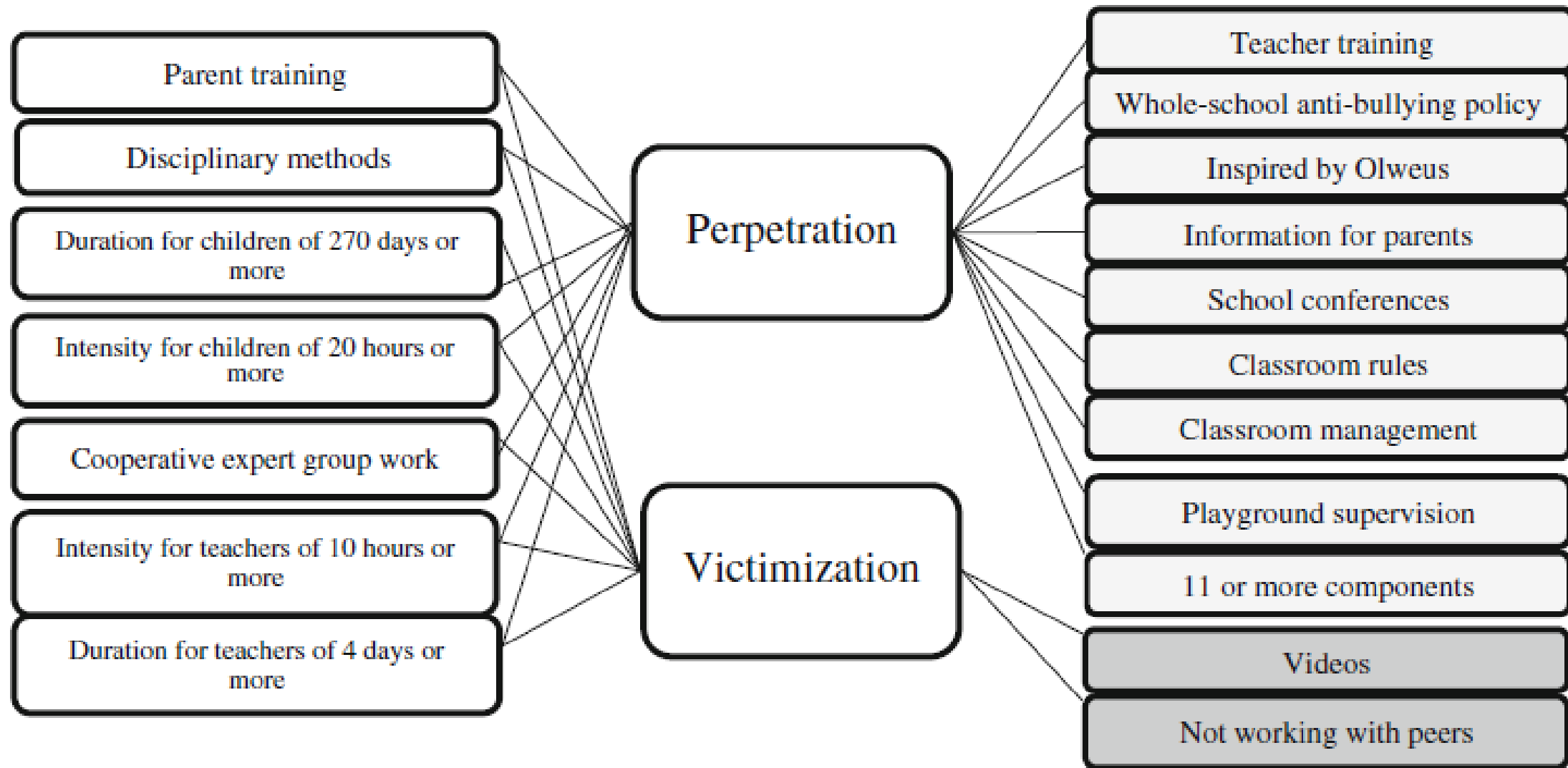
Special Issue: “Bullying and Cyberbullying: Protective factors and effective Interventions” Zych, Ttofi, and Farrington (in press)

Are cyberbullying intervention and prevention programs effective?  
A systematic and meta-analytical review (**Hannah Gaffney, David Farrington, Dorothy Espelage, Maria Ttofi**)

24 primary studies with 26 independent evaluations. These programmes were also effective in reducing cyberbullying perpetration (around 10%-15% decrease) and cyberbullying victimisation (around 14% decrease).







**Fig. 5.1** Effective components of anti-bullying programs according to the meta-analysis conducted by Farrington and Ttofi (2009)

# Conclusions

Meta-analyses found several protective factors against bullying and cyberbullying.

Most of the studies are cross-sectional. Thus, risk and protective factors cannot be clearly distinguished from consequences.

Studies focus on direct protective factors that are the other end of the scale of a risk factor. Linear relationships are assumed. More research is needed to discover buffering protective factors and non-linear relationships between bullying, cyberbullying and protective factors.

Anti-bullying and anti-cyberbullying programmes can be effective, but it is important to choose the right programme.

# Implications

Tailored interventions to improve anti-bullying programmes and possibly interrupt the continuity of antisocial behaviours in youth could be designed based on these findings.

It seems possible to protect young people from bullying and its consequences, but more research in this field is urgently needed.

# New horizons in research about bullying and cyberbullying

Longitudinal studies on predictors and consequences of bullying and cyberbullying

Research on protective factors

Projects in the understudied geographic areas

Tailored interventions

Randomised Controlled Trials

Connecting with projects on other antisocial behaviours



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**THANK YOU FOR YOUR ATTENTION**

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