

COST ACTION IS0801

Cyberbullying: definition and measurement issues
August 22, 2009, Vilnius, Lithuania

**Issues of language and frequency in
measuring cyberbullying:
Data from the Growing up with Media survey**

Michele Ybarra MPH PhD

Internet Solutions for Kids, Inc.



* Thank you for your interest in this presentation. Please note that analyses included herein are preliminary. More recent, finalized analyses may be available by contacting ISK for further information.



Growing Up
With Media

Acknowledgements

This survey was supported by Cooperative Agreement number U49/CE000206 from the Centers for Disease Control and Prevention (CDC). The contents of this presentation are solely the responsibility of the authors and do not necessarily represent the official views of the CDC.

I would like to thank the entire Growing up with Media Study team from Internet Solutions for Kids, Harris Interactive, Johns Hopkins Bloomberg School of Public Health, and the CDC, who contributed to the planning and implementation of the study. Finally, we thank the families for their time and willingness to participate in this study.

Technology use in the US: Prevalence rates

- More than 9 in 10 youth 12-17 use the Internet (Lenhart, Arafeh, Smith, Rankin Macgill, 2008; USC Annenberg School Center for the Digital Future, 2005).
- 71% of 12-17 year olds have a cell phone (Lenhart, 4/10/2009) and 46% of 8-12 year olds have a cell phone (Nielsen, 9/10/2008)

Technology use in the US: Benefits of technology

- Access to health information:
 - About one in four adolescents have used the Internet to look for health information in the last year (Lenhart et al., 2001; Rideout et al., 2001; Ybarra & Suman, 2006).
 - 41% of adolescents indicate having changed their behavior because of information they found online (Kaiser Family Foundation, 2002), and 14% have sought healthcare services as a result (Rideout, 2001).

Technology use in the US: Benefits of technology

- Teaching healthy behaviors (as described by My Thai, Lowenstein, Ching, Rejeski, 2009)
 - Physical health: Dance Dance Revolution
 - Healthy behaviors: Sesame Street's Color me Hungry (encourages eating vegetables)
 - Disease Management: Re-Mission (teaches children with cancer about the disease)

Issues of measuring cyberbullying

- Should we use a definition, or a list of behavioral items
- How does the timeframe affect prevalence rates? Response options for frequency?
- Data source sampling method

Issues of measurement: Definition-based measurement

- Youth may not want to endorse the 'label'
- Youth may not be able to generalize their experiences to the definition provided
- Most definitions are based upon Olweus' measure; is it the best one to use?

Issues of measurement: Behavior-based measures

- As technology continues to evolve, so too must the list of behaviors (how do we agree to a universal definition if it is constantly changing?)
- Comparisons across environments are difficult if different items are used for each
- Prevalence estimates generally increase with the number of items offered (i.e., the more chances for someone to say yes, the more people who will)
- Potential measurement of behaviors that do not meet Olweus' definition (e.g., does harassment = bullying?)

Studies published to date: Description

- Literature search conducted in July, 2009 on MedLine and PsychInfo using the search terms:
 - Cyberbully, Cyberbullying, Bullying + internet, Bully + internet
- 14 different studies identified
- Study dates ranged from 1999 – 2008
- Prevalence rates ranged from: 6-72% (23%)

Studies published to date: Timeframes queried

- Timeframes varied:
 - 5 did not specify (implied 'ever')
 - 5 used 'ever in the past year'
 - 2 used ever in the past couple of months
 - 1 used current school year
 - 1 used this semester

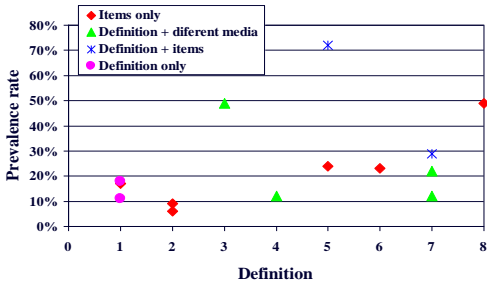
Studies published to date: Definitions

Author	%	Definition	# behavioral items
Aricak et al	24	No	5 types: being teased, spreading rumors, being insulted, being threatened, pictures displayed by other without ones consent and "other"
Dehue	23	No	cyberbully: 6, cybervictim: 6 (5 items are the same: MSN, hacking, email, name-calling, gossip); exclusive to cyberbully: ignoring, exclusive to cybervictim: blaming
Finkelhor	6	No	Harassment victimization: 2 behavioral items; perpetration: 3 items
Juvonen & Gross	72	Yes (but not specifically cyberbully or bullying): refer to mean things as "anything that someone does that upsets/offends someone else"	5 types (same as in school): insults, threats, sharing embarrassing pictures, privacy violation "cutting and pasting", password theft
Katzner	NR	Doesn't specifically say if definition used; however, is modeled of Olweus Bully/ Victim questionnaire	9 items: minor chat victimization: 5 items (e.g. How often are you threatened); major chat victimization: 4 items (e.g. How often are you Blackmailed or put under pressure during chat sessions)
Kowalski & Limber	11	Yes: Olweus Bully/ Victim questionnaire definition, followed by Electronic bullying questionnaire which defines ac bullying through email, IM, chat rooms, websites, or text msg sent to a cell phone)	
Li	17	No	Electronic bully and victim: both have 1 (medias looked at include email, cell phone, chat room)

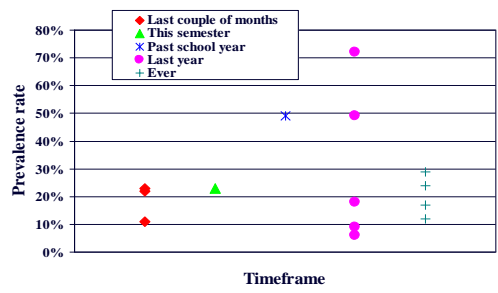
Studies published to date: Definitions

Author	%	Definition	# behavioral items
Patchin	29	Yes: Online bullying defined as "behavior that can include bothering someone online, teasing in a mean way, calling someone hurtful names, intentionally leaving persons out of things, threatening someone, saying unwanted, sexually related things to someone."	7 items for cyberbully victimization: being ignored by others, disrespected, called names, threatened, picked on, made fun of, rumors spread by others
Raskauskas	49	Yes: Bullying is defined as "when someone says things or does things over and over to make you feel bad or uncomfortable. This includes teasing, hitting, fighting, threats, leaving you out on purpose, sending you messages or images, or starting rumors about you"	Cyberbully / victim have 3 items each: Text-mg, Internet (websites, chat rooms), and picture-phone. (Traditional bully/victim have 4 measures each: physical, teasing, rumors, exclusion]
Sloje & Smith	12	Yes: Olweus Bully/ Victim question def and mentioned electronic bullying as including text msg, email, mobile phone calls, or picture/video clips	
Smith, Mahdavi, & Carvalho et al	22/ 12	Yes: Olweus Bully/ Victim question def and mentioned cyberbullying as including text msg, email, phone calls, or picture/photos or video clips, chat room, IM, or websites	
Topcu	NR	No	18 behavioral items: 14 for victimization, 12 for perpetration
Wolak	9	No	2 behavioral items for victimization, 3 for perpetration
Ybarra	18/ 49	Yes: Olweus definition, 2 media queried: internet, cell phones	8 behavioral items for victimization

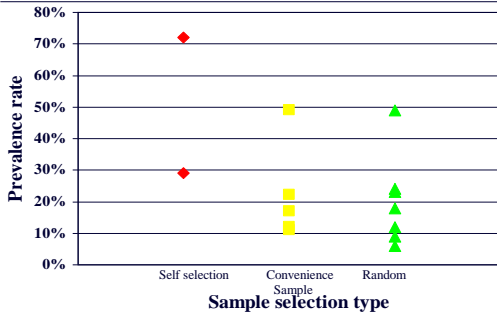
Studies published to date:
Prevalence rate by definition



Studies published to date:
Prevalence rate by timeframe



Studies published to date:
Prevalence rate by data sampling



Cyberbullying studies published to date: Summary

There is a lot of variability in measurement

- Aspects affecting prevalence rate:
 - Data sampling source: Self selection is associated with higher rates; random samples with lower rates
- Aspects less influential
 - Time frame: in general, prevalence rates are similar
 - Measure: in general, behavior lists yielded similar rates as definitions

It's likely that these aspects are less influential simply because of the wide variability in reported rates across studies

Case Study: Growing up with Media

- National survey in the United States
- Fielded 2006, 2007, 2008
- Participants were members of HPOL
- Sample selection was stratified based on youth age and sex.
- Data were weighted to match the US population of adults with children between the ages of 10 and 15 years and adjust for the propensity of adult to be online and in the HPOL.

Growing up with Media survey: Eligibility criteria

- Youth:
 - Between the ages of 10-15 years
 - Use the Internet at least once in the last 6 months
 - Live in the household at least 50% of the time
 - English speaking
- Adult:
 - Be a member of the Harris Poll Online (HPOL) opt-in panel
 - Be a resident in the USA (HPOL has members internationally)
 - Be the most (or equally) knowledgeable of the youth's media use in the home
 - English speaking

Youth Demographic Characteristics in 2008

- 51% Female
- Mean age: 14.5 years (Range: 12-17)
- 72% White, 14% Black, 9% Mixed, 6% Other
- 18% Hispanic
- 24% have a household income of \$35,000 or less

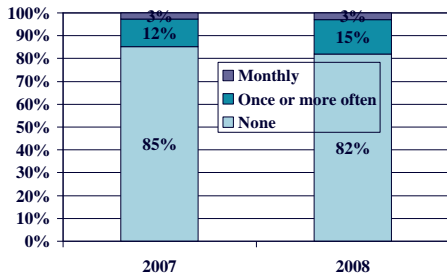
Definition-based measure

We say a young person is being bullied or harassed when someone else or a group of people repeatedly hits, kicks, threatens, or says nasty or unpleasant things to them. Another example is when no one ever talks to them. These things can happen at school, online, or other places young people hang out. It is not bullying when two young people of about the same strength fight or tease each other.

In the last 12 months, how often have you been harassed or bullied...?

- At school
- Online
- On cell phones via text messaging
- On the way to and from school
- Somewhere else

Prevalence rates for definition-based measure



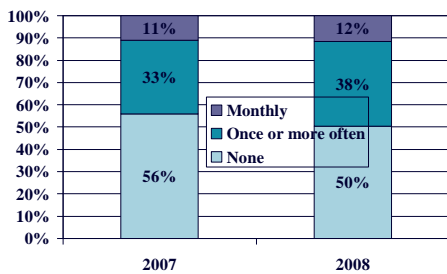
Behavior-based measure

- Someone made a rude or mean comment to me **online**.
- Someone spread rumors about me **online**, whether they were true or not.
- Someone made a threatening or aggressive comment to me **online**.
- Someone posted a video or picture **online** that showed me being hurt (by things like being hit or kicked) or embarrassed (by things like having their pants pulled down) for other people to see. I did not want them to post it.
- Someone my age took me off their buddy list or other **online** group because they were mad at me.
- Received a **text message** that said rude or mean things.
- Had rumors spread about you using **text messaging**, whether they are true or not
- Received a **text message** that said threatening or aggressive things

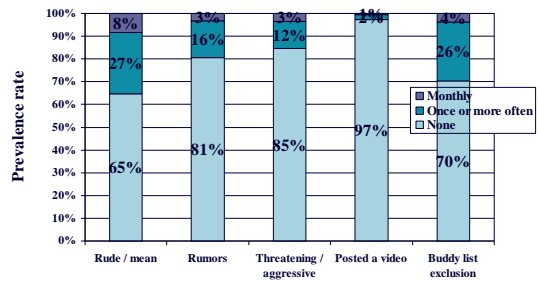
Cronbach's alpha = .87,05

(45% used text messaging in 2008, 58% in 2009)

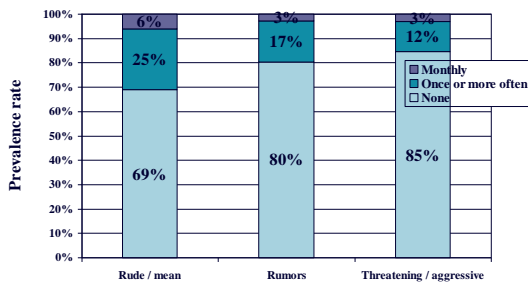
Prevalence rates for behavioral list-based measure



Prevalence rates for behavior-based questions: Internet (2008)

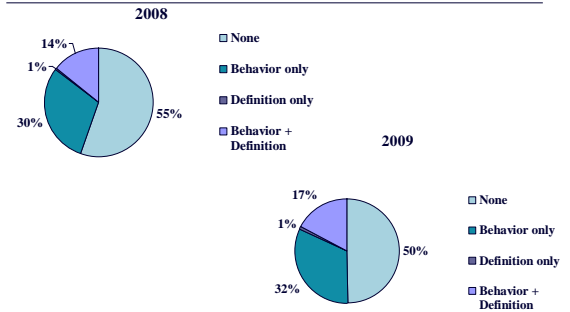


Prevalence rates for behavior-based questions: Cell phones (2008)



Note: restricted to the 802 youth who use text messaging

Overlap in rates by definition



Limitations

- Data are based upon the US. It's possible that different countries would yield different rates (particularly for text messaging harassment)
- Behavior-based list limited by space limitations in the survey
- Non-observed data collection
- Although our response rates are strong (above 70% at each wave), this still means that we're missing data from 30% of participants

Summary

- A lot of variation in measurement across studies
- Behavior-based list of experiences yields a higher prevalence rate than a definition-based measure
 - The behavior list has high sensitivity but low specificity (assuming the definition is the gold standard)

Questions to ponder

Without some sort of agreement on the 'gold standard' of measurement, we will not be able to compare prevalence rates across studies

- Are the behavior-based measures tapping into bullying specifically, or harassment generally
 - Does it matter?
- What is the frequency threshold that is important? (weekly, monthly, ever?)
- What do we do as technology continues to evolve?

Thank you

Michele Ybarra

Michele@IS4k.com

1 877 302 6858, ext. 801