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**The benefits and potential risks that
young people face online:
A look at what the data say**

Michele Ybarra MPH PhD

Center for Innovative Public Health Research



* Thank you for your interest in this presentation. Please note this presentation is a more recent version of the Emerging Technologies Conference presentation titled "The dark side of the internet: Youth internet victimization". Analyses included herein are preliminary. More recent, finalized analyses can be found in: Ybarra, M.L., Mitchell, K.J., & Korchmaros, J.D. (2011). National trends in exposure to and experiences of violence on the Internet among children. *Pediatrics*, 128(6), e1376-e1386.



Growing Up
With Media

Roadmap

- Benefits of technology
- Risks of technology:
 - Exposures
 - Violent content
 - X-rated material
 - "Sexting"
 - Experiences
 - Bullying / harassment
 - Unwanted sexual exposures
- Myths and truths about online risks

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).

[Note: Recent data refute the claim that people are using the Internet to self-diagnose or self-medicate: the vast majority (70%) consult a health professional and 54% friends and families when they have health concerns (Fox, 2011).]

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)

Benefits of technology

Social support for people with chronic disease:

One in four (23%) of people with high blood pressure, diabetes, heart conditions, lung conditions, cancer etc have gone online to connect with others who also have the chronic disease (Fox, 2011)

Benefits of technology

Cell phones seem to be playing a part in reducing the digital divide:

Compared to 21% of white teens, 44% of Black and African American teens and 35% of Hispanic teens go online through their phones (Lenhart, Ling, Campbell, Purcell, 2010)

With potential health implications:

Black and African American adult cell phone owners are twice as likely as White adult cell phone owners to use mobile health applications (15% vs. 7% respectively; Fox, 2010)



Growing Up
with Media

Growing up with Media survey

The data we will be discussing today largely come from the Growing up with Media survey:

- Longitudinal design: Fielded 2006, 2007, 2008
- Data collected online
- National sample (United States)
- Households randomly identified from the 4 million-member Harris Poll OnLine (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.

Funding and Collaborators

The study 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.

Collaborators who contributed to the planning and implementation of the study included: Dr. Dana Markow from Harris Interactive; Drs. Philip Leaf and Marie Diener-West from the Johns Hopkins Bloomberg School of Public Health; and Dr. Merle Hamburger from the CDC.

Eligibility criteria

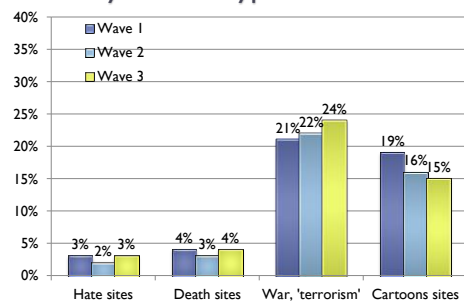
- **Youth:**
 - Between the ages of 10-15 years
 - Use the Internet at least once in the last 6 months
 - Live in the household at least 50% of the time
 - English speaking
- **Adult:**
 - Be a member of the Harris Poll Online (HPOL) opt-in panel
 - Be a resident in the USA (HPOL has members internationally)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

Youth Demographic Characteristics

| | 2006 (n=1,577) | 2007 (n=1,189) | 2008 (n=1,149) |
|--------------------------------|-------------------|-------------------|-------------------|
| Female | 50% | 50% | 51% |
| Age (SE) | 12.6 (0.05) | 13.7 (0.05) | 14.5 (0.05) |
| Hispanic ethnicity | 18% | 17% | 17% |
| Race: White | 70% | 72% | 72% |
| Race: Black / African American | 15% | 13% | 14% |
| Race: Mixed race | 7% | 9% | 9% |
| Race: Other | 8% | 6% | 6% |
| Household less than \$35,000 | 25% | 24% | 25% |
| Internet use 1 hour+ per day | 47% | 49% | 52% |

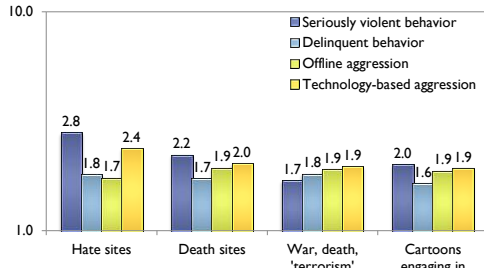
Exposures: Violent content

Percent of youth exposed to violence online by website type



Ybarra, Mitchell, Korchmaros (under review)

Odds of externalizing behavior given exposure to violence online



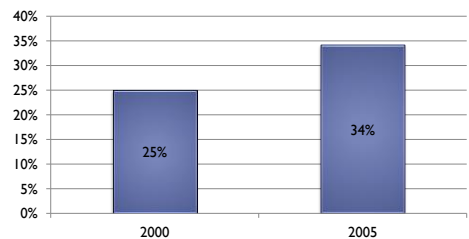
Data from Growing up with Media survey, Waves 1-3 (PI: Ybarra). Population-based odds (GEE) of reporting externalizing behavior given report of exposure to violence online. All odds ratios are statistically significant ($p < 0.001$)

Exposures: X-rated material

Exposure to sexual material online

- 42% of 12-17 year olds in one nationally representative survey report any exposure (wanted and unwanted) to x-rated material online (Wolak, Mitchell, & Finkelhor, 2007)
- 70% of 15-17 yr-old Internet users in another nationally representative survey reported accidentally viewing pornography online “very” or “somewhat” often (Rideout, 2001)

Percent of youth reporting unwanted exposure to x-rated material online



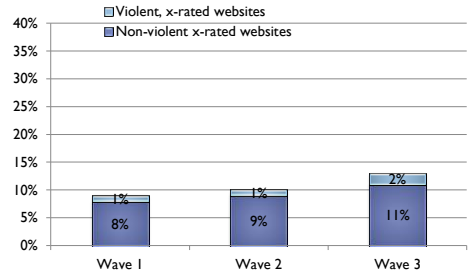
Note that unwanted may not necessarily mean unintentional
Wolak, Mitchell, Finkelhor, 2006

Challenges related to unwanted exposure

- 26% were very or extremely upset by the images
- 26% were very or extremely embarrassed
- 19% reported symptoms of extreme stress (e.g., avoidance of the computer, obsessive thinking about the event, feeling jumpy or irritable, loosing interest in things generally)

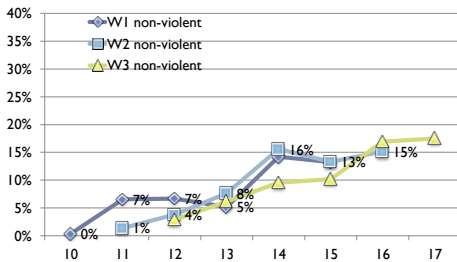
Wolak, Mitchell, Finkelhor, 2005

Percent of youth reporting wanted exposure to x-rated material online



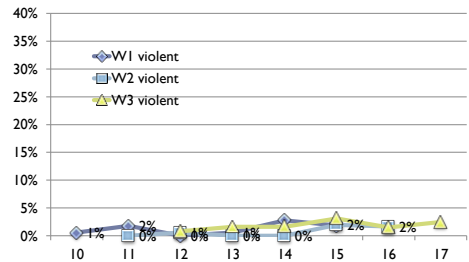
Data from the Growing up with Media survey; PI: Ybarra

Wanted exposure to **nonviolent** x-rated material online by age



Data from the Growing up with Media survey; PI: Ybarra

Wanted exposure to **violent** x-rated material online by age

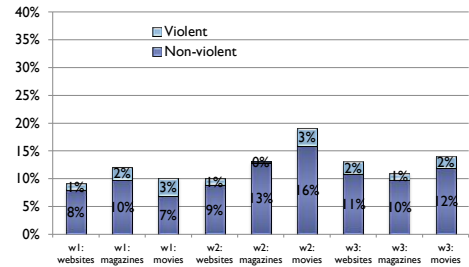


Data from the Growing up with Media survey; PI: Ybarra

Concurrent psychosocial problems related to wanted exposure

- In a longitudinal study of Dutch youth, exposure to sexually explicit Internet material stimulated sexual preoccupation among adolescents 13-20-years old (Peter & Valkenburg, 2008).
- In a national study of 10-15 year olds (Ybarra, Mitchell, Hamburger, Diener-West, Leaf, 2010), intentional exposure to **violent** x-rated material online increased the odds of self-reported sexually aggressive behavior **8-fold**. Exposure to **non-violent** x-rated material increased the odds of self-reported sexually aggressive behavior **2-fold**.

Percent of youth reporting wanted exposure to x-rated material online



Data from the Growing up with Media survey; PI: Ybarra

Exposures (experiences?): “Sexting”

Definition

Definitions vary but questions generally refer to the **creation** and **distribution** of photos or videos with a sexual overtone using technology (e.g., a cell phone, email, social networking site, etc).

Involvement

- 20% of 13-19 year olds admit to sending / posting a nude / nearly nude picture of themselves through technology (e.g., IM, SNS; The National Campaign to Prevent Teen and Unplanned Pregnancy, 2008); 9% of 13-18 year olds admit to someone /posting via text message or email specifically, and 3% have forwarded one (Cox Communications, 2009)
- Between 17% (Cox Communications, 2009) and 31% (The National Campaign to Prevent Teen and Unplanned Pregnancy, 2008) have received a nude or semi-nude photo via technology

Involvement

When **text messaging is examined** ***specifically***

- 4% of 12-17 year olds admit to sending sexually suggestive nude or nearly nude photos or videos of themselves
 - Boys and girls are equally likely to send a sexy picture
 - 17 year olds are more likely than all younger ages to send a sexy picture
- 15% have received such a photo or image

http://www.pewinternet.org/~media/Files/Reports/2009/PIP_Teens_and_Sexting.pdf

Motivation

From focus groups of teenagers, three reasons for 'sexting' emerge (Lenhart et al., 2010):

- 1) Exchange between boyfriends / girlfriends
- 2) Exchange between boyfriends / girlfriends that are then shared with people outside of the relationship (e.g., break up; fight)
- 3) Exchange between people not yet in a relationship but where at least one hopes to initiate a relationship

"These images are shared as a part of or instead of sexual activity, or as a way of starting or maintaining a relationship with a significant other. And they are also passed along to friends for their entertainment value, as a joke or for fun." – Amanda Lenhart, Pew Internet & American Life Project

Consequences

- Psychosocial impact largely unknown
- Legal impact is being debated / determined through court cases in several states (see Pew study for a review)

Experiences: Internet harassment and Bullying

Definition

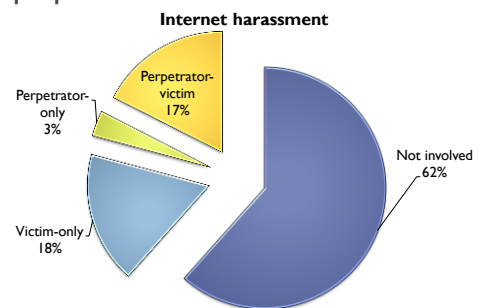
There is wide variability in the definition of harassment and bullying. Generally, it refers to an act of intentional aggression (e.g., “mean things”) towards someone else via technology (i.e., Internet, cell phone text messaging)

Context

- **Girl, 12:** “These people from school were calling me a prostitute and whore ... and saying I was raped. [It happened] because I’m an easy target. I didn’t let it bother me until about a month ago and [then] I started getting physical with people.”
- **Boy, 15:** “I was playing a first person shooter game and unintentionally offended this person who became very serious and began to threaten me by saying if this was real life he would physically harm me. [It happened because he] was unable to accept this was just a game.”

-Quotes from participants of the Youth Internet Safety Survey -2
(Finkelhor,Wolak, Mitchell, 2005)

Overlap between victimization and perpetration

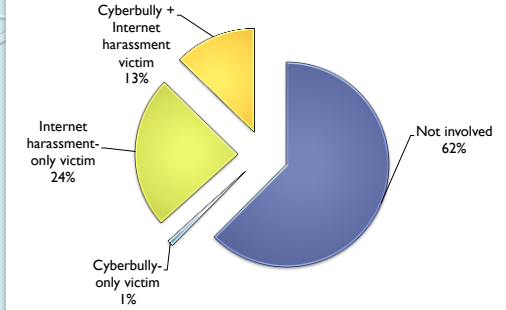


Average across Waves 1-3 of the Growing up with Media study (PI: Ybarra)

Involvement

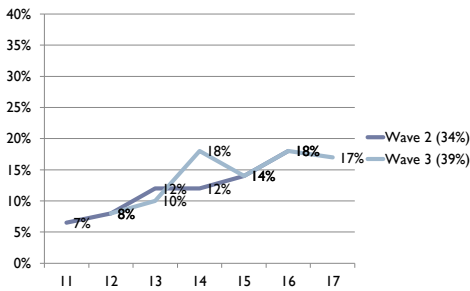
Depending on the measure used, most studies report between 20-40% of youth are targeted by bullying or harassment online and via text messaging (see Tokunaga, 2010 for a review).

Overlap between harassment and bullying



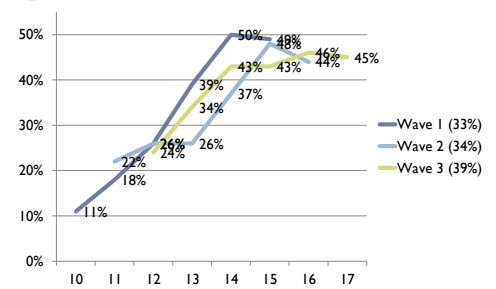
Average across Waves 2-3 of the Growing up with Media study (PI: Ybarra) (Cyberbully questions were added in Wave 2)

Cyberbully victimization by age across time



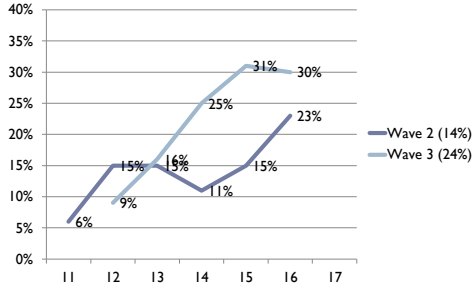
Data from the Growing up with Media study, PI: Ybarra (Cyberbully questions were added in Wave 2)

Internet harassment victimization by age across time



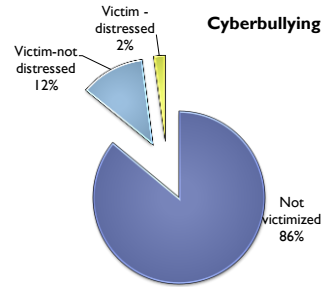
Data from the Growing up with Media study, PI: Ybarra

Text messaging harassment victimization by age across time



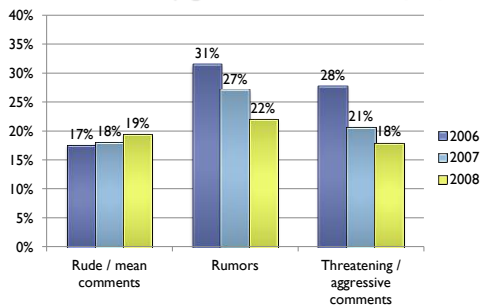
Data from the Growing up with Media study, PI: Ybarra
(Text messaging-based harassment questions were added in Wave 2)

Distressing cyberbullying victimization



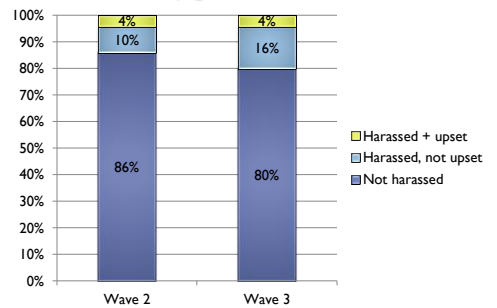
Data from Wave 3 of the Growing up with Media study, PI: Ybarra

Distressing Internet harassment victimization (age constant: 12-15 y.o.)



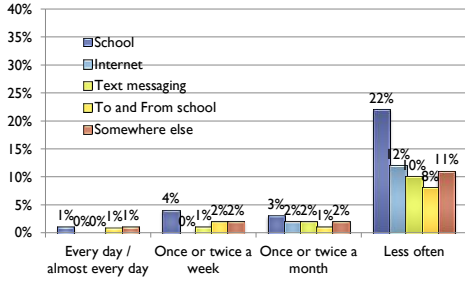
Distress = very or extremely upset by the experience
Data from the Growing up with Media study, PI: Ybarra

Distressing Internet harassment victimization (age constant: 12-15 y.o.)



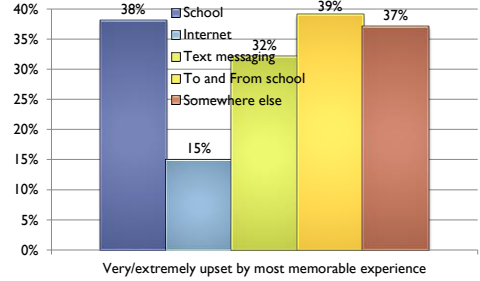
Data from Waves 2 and 3 of the Growing up with Media study, PI: Ybarra

Bullying victimization rates by environment



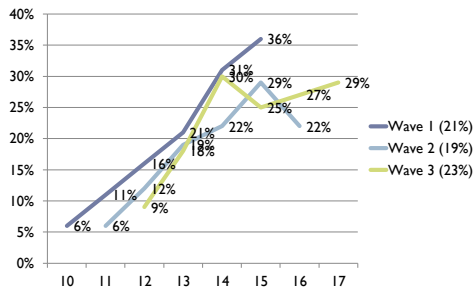
Data from the Growing up with Media study, PI: Ybarra

Distress related to bullying victimization rates by environment



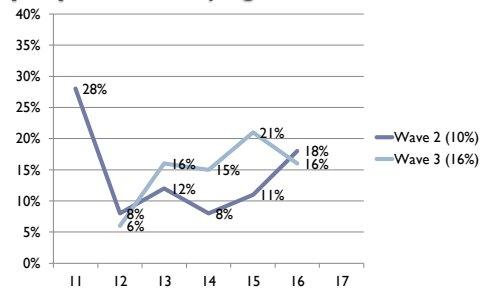
Data from the Growing up with Media study, PI: Ybarra

Cyberbully perpetration by age across time



Data from the Growing up with Media study, PI: Ybarra

Text messaging harassment perpetration by age across time



Data from the Growing up with Media study, PI: Ybarra
(Text messaging-based harassment questions were added in Wave 2)

Experiences: Unwanted sexual solicitation (unwanted sexual encounters)

Definition

It usually refers to the following:

- Being asked to **do** something sexual when you don't want to
- Being asked to **share** personal sexual information when you don't want to
- Being asked to **talk** about sex when you don't want to

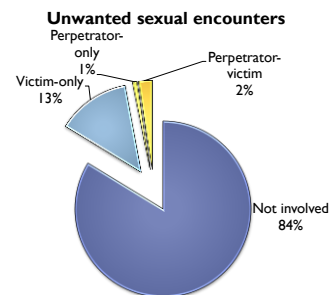
➡ It does **not** necessarily mean that youth are being **solicited for sex**.

Context

- **Girl, 14:** "I was chatting on the Internet and this guy just popped up in an Instant Message and started talking really dirty to me and saying things that I had never heard of before. He told me he was 30 years old and then he said, 'LOL' (laugh out loud)."
- **Boy, 11,** who was playing an online game with a man, 20: "He asked me something personal, something about a man's privates."

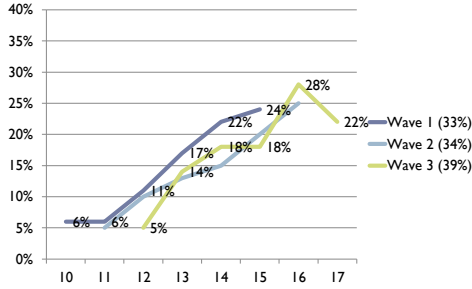
-Quotes from participants of the Youth Internet Safety Survey -2
(Finkelhor, Wolak, Mitchell, 2005)

Overlap between victimization and perpetration



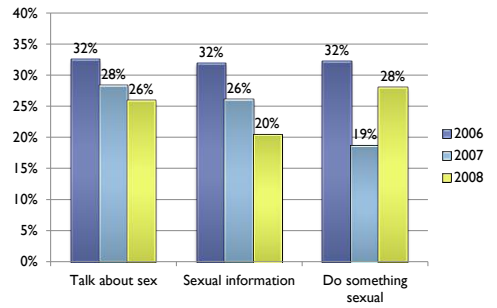
Average across Waves 1-3 from the Growing up with Media study (PI: Ybarra)

Unwanted sexual encounters victimization by age across time

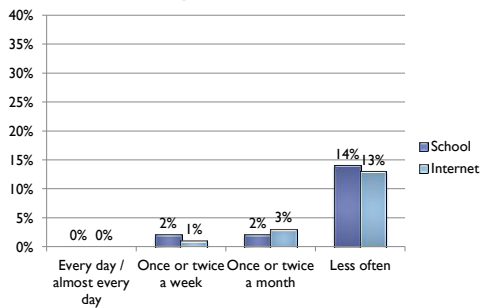


Data from the Growing up with Media study, PI: Ybarra

Very / extremely upset by the encounter – age constant (12-15 y.o.)

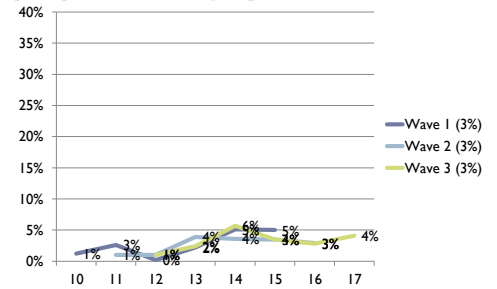


Unwanted sexual experiences victimization by environment



Average from Waves 2-3 from the Growing up with Media study (PI: Ybarra) (Questions about unwanted sexual experiences at school were added at W2)

Unwanted sexual encounter perpetration by age across time



Data from the Growing up with Media study, PI: Ybarra

Concurrent psychosocial problems for victims

Victims of harassment, bullying, and unwanted sexual experiences online are more likely to also report:

- **Interpersonal victimization / bullying offline** (Ybarra, Mitchell, Espelage, 2007; Ybarra, Mitchell, Wolak, Finkelhor, 2006; Ybarra, 2004)
- **Alcohol use** (Ybarra, Mitchell, Espelage, 2007)
- **Social problems** (Ybarra, Mitchell, Wolak, Finkelhor, 2006)
- **Depressive symptomatology and suicidal ideation** (Ybarra, 2004; Mitchell, Finkelhor, Wolak, 2000; The Berkman Center for Internet & Society, 2008; Hinduja & Patchin, in press)
- **School behavior problems** (Ybarra, Diener-West, Leaf, 2007)
- **Poor caregiver-child relationships** (Ybarra, Diener-West, Leaf, 2007)

Concurrent psychosocial problems for perpetrators

Perpetrators of harassment, bullying, and unwanted sexual experiences online are more likely to report:

- **Interpersonal victimization and perpetration (bullying) offline** (Ybarra, Mitchell, Espelage, 2007; Ybarra & Mitchell, 2007; Ybarra & Mitchell, 2004)
- **Aggression / rule breaking** (Ybarra, Mitchell, Espelage, 2007; Ybarra & Mitchell, 2007)
- **Binge drinking** (Ybarra, Mitchell, Espelage, 2007)
- **Substance use** (Ybarra, Mitchell, Espelage, 2007; Ybarra & Mitchell, 2007)
- **Poor caregiver child relationship** (Ybarra, Mitchell, Espelage, 2007; Ybarra & Mitchell, 2004; Ybarra & Mitchell, 2007)
- **Low school commitment** (Ybarra & Mitchell, 2004)

Myths and truths about online risks

Assumptions about Internet victimization experiences

- It's happening to everyone
- It's increasing over time
- It's getting nastier / kids are more affected
- The Internet is doing it

Research supporting and refuting assumptions about Internet victimization

- **Assumption: Victimization is increasing**

Rates of victimization appear to be holding steady (and maybe in some cases decreasing) from 2006-2008

- **Assumption: Victimization is getting nastier**

At least as measured by rates of distress – victimization distress rates appear to be holding steady (and maybe in some cases decreasing) from 2006-2008

Research supporting and refuting assumptions about Internet victimization

- **Assumption: Victims are always innocent**

The interplay between victimization and perpetration can sometimes be complex. These data suggest that victims are significantly more likely to also be perpetrators. It can be a two-way street.

- **Assumption: the Internet is doing it**

The strong overlap between online and offline behaviors ...and the fact that these kids are significantly more likely to have additional psychosocial problems

➡ Suggests that this is form of 'old' behavior in a 'new environment'

Recap

Victimization from negative online experiences and exposures is associated with psychological distress and negative mental health outcomes for some youth.

The Internet is not the only medium through which youth are having these experiences and exposures. It is important to understand how technology is changing the lives of youth; and also to not forget that the Internet and cell phones are just pieces of a larger puzzle that youth must navigate successfully every day.

Takeaways

As professionals we need to be able to sit with these two "competing" realities:

- We need to raise awareness about the impact that Internet victimization may have, including doing a better job of identifying youth negatively impacted and getting them into services (e.g., therapy).
- We also need to recognize that:
 - The majority of youth are not being victimized online,
 - The majority who are, are not seriously upset by it.

Thank you

Michele Ybarra MPH PhD
Center for Innovative Public Health
Research
Michele@InnovativePublicHealth.org
| 877 302 6858, ext. 801