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**Emerging issues in research on adolescents'
exposure to violence**

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Growing Up With Media

* 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 CiPHR for further information.

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Acknowledgements

Background: Media violence

- There has been a longstanding concern about the consequences of youths' exposure to violence in the media (Browne & Hamilton-Giachritsis, 2005; Huesmann & Taylor, 2006), with particular concern about the effects of such exposure on violent behavior.
- As evidence grows about the potential deleterious effects of violent exposures via television (Huesmann & Taylor, 2006; Huesmann, 2007), new technologies have emerged that present increased opportunities for such exposure by young people.

Background: Technology use

- 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).
- 77% of 12-17 year olds own a game console (Lenhart, 4/10/2009)
- 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 (Nielson, 9/10/2008)

Background: 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).

Background: Benefits of technology

- Teaching healthy behaviors (as described by My Thai, Lownestein, 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)

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.

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=1576)	2007 (n=1189)	2008 (n=1149)
Female	51%	50%	51%
Mean age (SE)	12.6 (0.05)	13.7 (0.05)	14.5 (0.05)
Hispanic ethnicity	18%	16%	16%
Race: White	71%	72%	72%
Race: Black / African American	14%	13%	14%
Race: Mixed race	9%	9%	9%
Race: Other	6%	6%	6%
Household less than $35,000	26%	24%	25%
Internet use 1 hour+ per day	43%	49%	52%

Research Questions

- What is the relative influence of interactive versus passive media violence exposure on externalizing behaviors?

- Is media violence exposure influential in explaining externalizing behavior over and above exposure to violence in the community?

Statistical Methods

- Missing data imputed using best set regression
- Weighted to mirror the demographic characteristics of adults living in the US (based upon the CPS)
- Propensity to be online and in the HPOL, as well as a respondent over time was applied
- Poisson regression population average model (GEE), assuming an unstructured correlation matrix.

Measure of media violence

In the last 12 months, when you <u>XXX</u>, how many of them show physical fighting, hurting, shooting, or killing?

Where "XXX" =
- TV or movies*
- Music *
- Video, computer, or Internet games * *
- Websites with real people * *
- Websites with cartoons * *

* Passive **Interactive

Measure of community violence

In the last 12 months, have you in real life .:?

- Seen someone get attacked or hit on purpose? Somewhere, like at home, at school, at a store, in a car, on the street or anywhere else?
  - Seen someone get attacked on purpose with a stick, rock, gun, knife, or other thing that would hurt?
- Seen one of your parents get hit, slapped, punched, or beat up by your other parent, or their boyfriend or girlfriend?

Measure of community violence

- Seen someone steal something from a home, a store, a car, or anywhere else? Things like a TV, stereo, car, or anything else?
- Been in a place in real life where you could see or hear people being shot, bombs going off, or street riots?
- When a person is murdered, it means someone killed them on purpose. In the last 12 months, have you seen someone murdered in real life? This means not on TV, video or Internet games, or in the movies.

Seriously violent behavior

- Murder: shooting/stabbing
- Aggravated assault: Attacking needing medical care or threatening with a weapon
- Robbery: Used a knife or gun or some other kind of weapon like a bat to get something from someone else
- Sexual assault (forcing someone to kiss you or do something sexual when they didn't want to)

Delinquent behavior

- Banged up or damaged something that did not belong to you
- Started a fire on purpose, where you wanted something to get damaged or destroyed
- Broken into someone else's house, building or car
- Lied to someone to get something that you wanted, or to get someone to do you a favor, or to get out of doing something you didn't want to do

Delinquent behavior

- Taken something that was valuable, like shoplifting or using someone else's credit card, when no one was looking
- Stayed out at night even though you knew your parents would not want you to
- Run away from home and stayed away overnight Ditched / Skipped school
- Hurt an animal on purpose, like cutting off its tail, hitting or kicking it, or killing it for fun

Aggressive behavior

- Shoved, or pushed, or hit or slapped another person your age
- Threatened to hurt a teacher
- Been in a fight in which someone including yourself was hit
- Gotten into a fight where a group of your friends were against another group of people
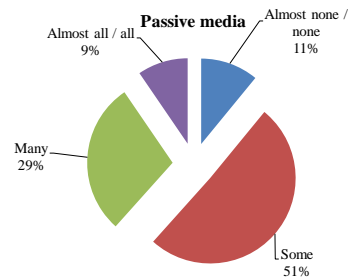- Relational aggression (social exclusion, rumors)

Prevalence rates of media violence exposure
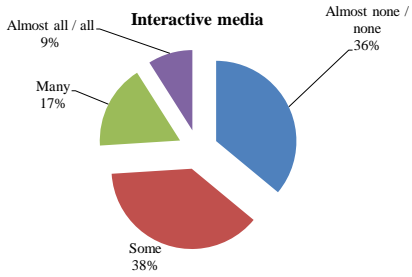
Across the three waves…

7-12% of youth reported that **almost all or all** of at least one of the **passive** media they consumed in the past year, defined by television and/or music, depicted physical fighting, hurting, shooting, or killing.

10% reported that **almost all or all** of at least one of the **interactive** media they consumed in the past year, defined by games and/or websites, depicted violence.
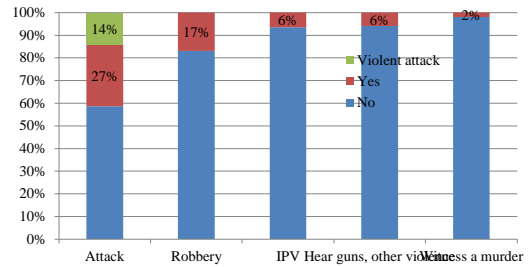
Prevalence rates of media violence exposure

Passive media

- Almost all / all 9%
- Almost none / none 11%
- Many 29%
- Some 51%

Prevalence rates of media violence exposure

Interactive media

- Almost all / all 9%
- Many 17%
- Some 38%
- Almost none / none 36%

Exposure to violence in the community

Legend:
- Violent attack (green)
- Yes (red)
- No (blue)

	Violent attack	Yes	No
Attack	14%	27%	
Robbery		17%	
IPV		6%	
Hear guns, other violence		6%	
Witness a murder		2%	

Categories along x-axis: Attack, Robbery, IPV, Hear guns, other violence, Witness a murder

Incident relative rate (IRR) of externalizing behaviors given media violence exposure

Externalizing behavior	Interactive Media	Passive Media
	IRR (95% CI)	**IRR (95% CI)**
Seriously violent behavior	4.5 (2.5, 8.0)	4.1 (2.3, 7.3)
Delinquent behavior	2.2 (1.8, 2.7)	1.7 (1.4, 2.1)
Aggressive behavior	2.2 (1.9, 2.5)	1.8 (1.5, 2.1)

Poisson regression population average model (GEE), assuming an unstructured correlation matrix. All IRRs $p <= 0.001$

Adjusted Incident relative rate of externalizing behaviors given media violence exposure

Externalizing behavior	Interactive Media	Passive Media
	IRR (95% CI)	**IRR (95% CI)**
Seriously violent behavior	1.6 (1., 2.7)	1.7 (1.0, 3.0)
Delinquent behavior	1.3 (1.1, 1.5)***	1.1 (1.0, 1.3)
Aggressive behavior	1.3 (1.1, 1.5)***	1.2 (1.0, 1.4)*

Poisson regression population average model (GEE), assuming an unstructured correlation matrix. **Adjusted for other type of violent media exposure, youth sex, age, exposure to community violence, alcohol use, and propensity to respond to stimuli with anger.**

Limitations

- Findings need to be replicated – preferably in other national data sets
- Data are based upon the US. It's possible that different countries would yield different rates
- 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…but we are statistically adjusting for non-response

Conclusions

Exposure to violent media in passive environments appears to be equally influential as violent media in active environments in explaining the amount of violent and aggressive behavior youth report engaging in.

Conclusions

Efforts to reduce the amount of violence in children's media diets across all mediums may have an impact on the amount of violent and aggressive behavior they manifest over time.

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