

## Linkages between violence online and youth seriously violent behavior

Special Panel: A tribute to Dr. Leonard Eron  
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\* Thank you for your interest in this presentation. Please note that analyses included herein are preliminary. More recent, finalized analyses can be found in: Ybarra M, Diener-West M, Markow D, Leaf P, Hamburger M, & Boxer P. Linkages between internet and other media violence with seriously violent behavior by youth. *Pediatrics*. 2008;122(5):929-937, or by contacting CIPHR for further information.



## Brief Description of the Growing up with Media survey

Online data collection among randomly identified households with adult members of Harris Poll OnLine

- Baseline (August – September 2006)
  - 1,588 households
  - Youth between the ages of 10-15 years
  - English speaking
  - 26% response rate
- Follow-up (October - December 2007)
  - 1,206 households
  - 76% follow-up rate

## Eron's influence

The main purpose of the Growing up with Media survey is to extend our understanding of the linkages between exposure to media violence and the expression of externalizing behaviors (Eron et al's work) by...

1. Focusing on new media (Internet, games)
2. Measuring a wide range of behaviors: seriously violent behavior, aggressive behavior (online and offline), and delinquent behavior

## Exposure to violent media

In the last 12 months,  
 when you watch **TV or movies**, how many of them show...  
 when you listen to **music**, how many songs talk about ...  
 when you play **video, computer or Internet games**, how many show ...  
 how many of the **websites** you go to show **real people**...  
 how many of the **websites** you go to show **cartoons**...

physical fighting, hurting, shooting, or killing?

Almost none/none  
 Some of them  
 Many of them  
 Almost all/all

## Seriously violent behavior

- Shooting / stabbing someone
- Aggravated assault (involvement in a fight where someone required medical care, threatening someone with a weapon)
- Robbery
- Sexual assault

Wave 1: 4.8% (Cronbach's alpha = 0.87)

Wave 2: 5.6% (Cronbach's alpha = 0.95)

## Aggressive behavior offline

- 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 (excluded someone from your group, spread a rumor about someone)

Wave 1: 58.3% (Cronbach's alpha = 0.80)

Wave 2: 51.5% (Cronbach's alpha = 0.89)

## Aggressive behavior online

- Rude or mean comments
- Spread rumors about someone else
- Made aggressive or threatening comments to someone
- Tried to get someone to talk about sex when they did not want to
- Tried to get someone to do something sexual when they did not want to
- Ask someone online about really personal sexual information when they did not want to give it

Wave 1: 21.4% (Cronbach's alpha = 0.95)

Wave 2: 20.4% (Cronbach's alpha = 0.96)

## 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
- 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

Wave 1: 57.1% (Cronbach's alpha = 0.86)

Wave 2: 53.2% (Cronbach's alpha = 0.95)

Pair wise correlations

Violent media → Behavior across Waves

	Wave 1										Wave 2			
	Behavior				Media						Behavior			
	SV	D	A	A(O)	T	M	G	R	C	SV	D	A	A(O)	
T	0.09	0.17***	0.23***	0.11*										
M	0.13***	0.23***	0.25***	0.21***	0.47***									
G	0.10	0.20***	0.24***	0.09	0.56***	0.35***								
R	0.14**	0.03	0.15***	0.07	0.29***	0.32***	0.32***							
C	0.08	0.15***	0.16***	.14***	0.30***	0.26***	0.31***	0.33***						
SV	0.30***	0.14***	0.17***	.11*	0.00	0.04	0.01	0.08	0.07					
D	0.36***	0.40***	0.37***	0.24***	0.08	0.13***	0.06	0.08	0.11*	0.79***				
A	0.16***	0.27***	0.36***	0.15***	0.09	0.16***	0.04	0.03	0.09	0.63***	0.74***			
A(O)	0.33***	0.24***	0.29***	0.29***	0.03	0.07	0	0.06	0.08	0.76***	0.74***			
TV	0.02	0.07	0.03	0.05	0.39***	0.18***	0.30***	0.17***	0.23***	0.08	0.17***	0.20***	0.09	
M	0.08	0.13***	0.16***	0.13***	0.23***	0.39***	0.21***	0.19***	0.12**	0.20***	0.30***	0.34***	0.23***	
G	0.07	0.13***	0.16***	0.11*	0.39***	0.19***	0.53***	0.24***	0.26***	0.12**	0.20***	0.20***	0.15***	
R	0.05	0.10*	0.14***	0.12**	0.18***	0.21***	0.13**	0.23***	0.15***	0.22**	0.23***	0.30***	0.27***	
C	0.02	0.13***	0.14***	0.09	0.21***	0.19***	0.23***	0.14***	0.26***	0.20***	0.26***	0.32***	0.24***	

SV: Seriously violent; D: Delinquent behavior; A: Aggressive; A(O): Aggressive online  
 T: TV; M: Music; G: Games; R: Real people online; C: Cartoons online

Mean scores of violent behavior based upon rating of how much like **real life** the violence in games is

	Seriously violent behavior		Delinquent behavior		Aggressive behavior		Aggressive behavior online	
	Wave 1	Wave 2	Wave 1	Wave 2	Wave 1	Wave 2	Wave 1	Wave 2
	Nothing like real life (Reference Group)	0.17	0.20	1.75	1.84	2.06	1.66	0.66
Somewhat like real life	0.41	0.29	<b>2.37 *</b>	2.53 +	<b>2.95 **</b>	<b>2.61*</b>	<b>1.14 *</b>	0.75
Almost exactly like real life	0.93	0.64	3.41	3.94	<b>5.19 **</b>	2.11	1.14	1.19

+ p<.10; \* p<.05; \*\* p<.01; \*\*\* p<.001 (adjusted for child age and sex)  
 Wave 1: Nothing like real life n=501; Somewhat like real life n=409; Almost exactly like real life n=62  
 Wave 2: Nothing like real life n=429; Somewhat like real life n=239; Almost exactly like real life n=36

Mean scores of violent behavior based upon rating of how similar the **characters** in games are to the child and people s/he knows

	Seriously violent behavior		Delinquent behavior		Aggressive behavior		Aggressive behavior online	
	Wave 1	Wave 2	Wave 1	Wave 2	Wave 1	Wave 2	Wave 1	Wave 2
	Nothing like me or people I know (Reference Group)	0.14	0.11	1.71	1.79	1.96	1.76	0.55
Somewhat like me or people I know	<b>1.03*</b>	<b>0.37*</b>	<b>3.59**</b>	<b>3.19**</b>	<b>5.27***</b>	<b>2.59*</b>	<b>2.38***</b>	0.73
Almost exactly like me or people I know	1.52	3.96	5.92	8.45	<b>6.74*</b>	5.25	1.83	4.79

+ p<.10; \* p<.05; \*\* p<.01; \*\*\* p<.001 (adjusted for child age and sex)  
 Wave 1: Nothing like me n=787; Somewhat like me n=165; Almost exactly like me n=20  
 Wave 2: Nothing like me n=576; Somewhat like me n=109; Almost exactly like me n=19

Musings

Consistent with Eron's work...

Aggressive behavior, delinquent behavior, and seriously violent behavior are significantly and positively correlated to a violent media diet.

This is true for movies and TV, music, games, and web sites.

Over time, significant correlations are noted for aggressive and delinquent behavior and almost all types of violent media.

Unexpectedly, more significant correlations are noted for behavior at Wave 1 and violent media at Wave 2, than vice versa.

## Musings

Consistent with Eron's work...

The current data suggest elevated rates of aggressive behavior, delinquent behavior, and even seriously violent behavior

For youth who report that their violent media exposures are **similar to real life**, and especially for those who report greater **identification with the characters**

Associations are especially strong between aggressive behavior and identification with game characters

## Limitations

Youth reporting externalizing behaviors at Wave 1 were less likely to participate at Wave 2 (e.g., substance use).

Reliance on self-report about socially undesirable behaviors.

It's possible youth were monitored while completing the survey.