Evaluation of Screen Time in Children

Mohammad Mertaban

University of Vermont

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Problem Identification & Need: Background

BACKGROUND

- 2011 American Academy of Pediatrics Media Guidelines:
  - Children under the age of 2: No screen time.
  - Children above the age of 2: Entertainment media for no more than 1-2 hours per day.
- 2015 American Academy of Pediatrics Media Guidelines
  - Optimal media education begins after 2 years of age
  - Loose interim guidelines

PROBLEM

- Children/adolescents: more than 6 hours per day with media (more than in formal classroom instruction)
- Survey of 365 pediatricians:
  - 50% recommend limiting media use to 1 to 2 hours per day
  - 50% not interested in learning about media effects on their patients
- 30% of Chittenden County children play with a mobile device when they still are in diapers
- In Chittenden County, 75% of 13- to 17-year-olds have smartphones; 24% admit using their phones almost constantly.
Public Health Costs

**Violence:** media violence may be associated with 10% of real-life violence

**Sex:** many studies linked exposure to sex in media to earlier onset of sexual intercourse and teen pregnancies. In 2010, teen pregnancy and childbirth accounted for **$9.4 billion** to U.S. taxpayers for health care, foster care, and increased incarceration rates among children of teen parents.

**Drugs:** witnessing smoking scenes in movies may be the leading factor associated with smoking initiation among youth. Total economic cost of smoking is more than $300 billion a year, including nearly $170 billion in direct medical care for adults and more than $156 billion in lost productivity due to premature death and exposure to secondhand smoke.

**Obesity:** media currently implicated in obesity epidemic; unclear how. Children & Adolescents view about 7,500 food advertisements per year (most fast food or junk food). Media replaces physical activity. By one estimate, the U.S. spent $190 billion on obesity-related health care expenses in 2005—double previous estimates. In Chittenden County, 12% of children are considered obese with an average of $19,000 spent on each one of these children for health maintenance.

**Eating disorders:** In Fiji, a naturalistic study of teenaged girls found that the prevalence of eating disorders increased dramatically after the introduction of American TV programs. The cost of outpatient treatment for one patient diagnosed with an eating disorder can average close to $100,000.00
Community Perspective

- “Here at Hinesburg Community School, we value the importance of integration. While we understand that the current exposure of children to screen time has had some negative impact on children, we would like to show children how to integrate media and screen time into something that is beneficial and positive, yet still entertaining.”
  
  – Hinesburg Community School Principle

- “In times where children see screens everywhere they go, it is so important to allow children to just experience life. Sign them up in extracurricular activities. Pretty soon, they won’t have anytime in front of the screen. Rather, they will be learning how to interact with others, the importance of team work, and how to be a balanced individual.”
  
  – Hinesburg Community Parent

- “I feel children who have a lot of screen time underestimate the amount of time they actually spend on a screen. By setting limits based on what they say they are getting, it helps them realize how much more time they spend. I have found many people make changes for the better after realizing how much time they are really wasting in front of a device.”
  
  – Hinesburg Family Practice Physician
Intervention & Methodology

INTERVENTION

▪ Conduct a formal presentation with family medicine healthcare practitioners of Hinesburg Family Practice to educate about three things: (1) the effects of media on childhood development and (2) the new guidelines on media in children from the AAP and (3) how to effectively engage parents in this discussion and offer advice when appropriate

▪ Develop educational material to give to parents and children on the effects of media and screen time.

METHODOLOGY

▪ One-hour workshop educating staff at Hinesburg Family Practice on the effects of screen time in childhood development.

▪ Create a brochure that can serve as a resource for Hinesburg Family Practice to distribute to the community’s parents and school districts
  ▪ Brochure aims to address effects of screen time on childhood development and how to moderate screen time at home.
Results

Created a one-page brochure to address the effects of screen time in current children in the United States.

- The brochure will be distributed to the Hinesburg Family Practice and be available in the waiting room for patients to read.

A 21-slide power point presentation discussing effects of media on people

- Obtained constructive and practical feedback about the presentation to increase likelihood that the providers would utilize this information in their practice.

- Created a survey to be given before and after the workshop to assess three things: (1) how knowledgeable providers are about the effects of media on children (2) how comfortable providers feel discussing the effects of media on children and (3) how comfortable providers feel about counseling parents and children about the media guidelines developed by the AAP.
Results (continued)

Question 1: How well versed are you in the effects of screen time on children and adolescents?

Question 2: How comfortable are you discussing the effects of screen time on children with parents (patients?)

Question 3: How comfortable are you discussing the American Academy of Pediatrics guidelines.

N = 11
Evaluation of Effectiveness & Limitations

EVALUATE EFFECTIVENESS

- Educational brochure: Obtain feedback from five parents who read the brochure from an objective perspective.
- Pre and post workshop evaluations: Have attendees of the workshop identify what was helpful and what can be done to improve presentation in the future. Included in the survey should be questions about their comfortability with the material before and after the workshop.

LIMITATIONS

- Parents who bring their children to the doctor are more concerned about their children’s current habits than the general population. This could reflect an element of bias.
- The presentation is only one hour, a limited amount of discussion time to cover all of the effects of screen time on childhood development.
- The current AAP recommendations are only temporary until new recommendations are released; they do not outline specific interventions.
Future Interventions/Projects

1. Continue distributing brochures to community parents and evaluating effectiveness of these brochures by soliciting feedback.

2. Identify other practices in Chittenden County that could benefit from such a workshop.

3. As new guidelines are developed, update current brochure and workshop to reflect new information.

4. Create a focus group (of both adults and adolescents) that can further develop the workshop and present them to parts of the community that directly involve children (schools, museums, camps).

5. Collaborate with other pediatricians and organizations that are fighting childhood obesity. In a study about children in Chittenden County, a reduction in TV viewing was associated with a significant decrease in time spent on sedentary activities and BMI compared to a control group.

6. Learn how to use technology effective, as Hinesburg Elementary did. Hinesburg Community School was the first school in the state of Vermont to establish a one-to-one iPad to child ratio. Technology is being incorporated into the educational curriculum and students are learning how to moderate the use of technology.
Interview Consent Form

Thank you for agreeing to be interviewed. This project is a requirement for the Family Medicine clerkship. It will be stored on the Dana Library ScholarWorks website. Your name will be attached to your interview and you may be cited directly or indirectly in subsequent unpublished or published work. The interviewer affirms that he/she has explained the nature and purpose of this project. The interviewee affirms that he/she has consented to this interview.

Yes _____________________________ / No _____

If not consenting as above: please add the interviewee names here for the department of Family Medicine information only.

Name: ______________________________________________________________
References


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