Television and the attention, play and language of young children

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Relevance of a presentation on television and development in the age of new media

- New media has not displaced television, as TV has become ubiquitous to the degree it has become ‘invisible’, and children’s TV viewing hours have not decreased. (Christakis et al 2009; Courage, Murphy, Goulding & Setliff 2010; Golvin et al in Lineberger & Vaala 2010; Masur & Flynn 2008)
- Post birth, the first three years of brain development establish the architecture of the brain that will long term inform children’s health outcomes (physical and mental), their behaviour and their capacity to learn (Christakis, Zimmerman, DiGuiseppe & McCarty 2004; McCain, Mustard & Shankar 2007).
- Infants and toddlers are the age group of greatest research focus as they are in the critical foundational years when brain architecture is formed, and gene-environment interactions are most active (Christakis, Zimmerman, DiGuiseppe & McCarty 2004).
- Children’s development is primarily dependent on relationships with parents, and significant others, with ‘serve and return’ as a critical quality.
- The context in which children develop needs to be the subject of scrutiny as there is considerable evidence that the presence of background television is likely to diminish the quality of the interactions in these relationships, particularly in those formative years.

Purpose of the presentation

- To outline recent findings regarding television and young children.
- The presentation argues that television as a medium, or the time spent watching it are not so much the issues as the context that parents create for very young children's television viewing

Presentation outline

- Contextual information about young children and television
- Television and children birth to 6 months, and under twos
- Television and children's play, attention and learning
- Television and children's language development
- Creating contexts for young children's television viewing

Key contextual information about young children and TV watching

- Young children do not watch TV as they might look out a window. It is different in quality from real world seeing and hearing. Rather it has a 'developmental course' so maturation must be taken into account when understanding its impact (Anderson & Hanson 2010).
- Television as a perceptual stimulus is not equal to real life experience (Anderson & Hanson 2010).
- Screen time is any time spent in front of a TV (or other new media), but not necessarily watching.
- Children learn better from real stimuli than video stimuli. TV imposes a higher cognitive load on children than real life, but TV can adapt, eg. Play School (slower speed, repetition, co-viewing with parent and associated verbal interactions, few transitions / changing scenes).
- Research can be divided into studies of background television (not actively being watched), and studies of foreground television (active watching of children's program).
- Children’s attention is divided between verbal, visual and motor interactions (Courage & Setliff 2010).
- Research can be divided into studies of background television (not actively being watched), and studies of foreground television (active watching of children's program) (Kirkorian, Pempak, Murphy, Schmidt & Anderson 2009).

Key contextual information about children and TV watching (cont.)

- Attention getting and attention holding are now the same. Attention getting does not involve children’s learning activities which is central to learning (Courage & Setliff 2010).
- TV can be a part of a child’s life regardless of whether it is being watched (Anderson & Hanson 2010).
- Children under 2 watch background TV viewing more often with the availability and use of baby videos (Courage & Setliff 2010).
- The number of hours of children’s television viewing has increased with the continuous availability and use of baby videos (Courage & Setliff 2010).
- The mechanisms through which exposure to television in the very early years may affect brain architecture are not clear (Courage, Murphy & Setliff 2010).
What this presentation is not about

- The relationship between television viewing and obesity levels, including advertising of junk food and the levels of physical activity in children
- Children's social development and heavy TV viewing
- TV viewing 'causing' ADHD
- The effectiveness of Baby Einstein videos or equivalent

Television and children 0-6 months (Anderson & Hanson 2010).

- Children's brains are too immature to process television images until 6 months of age, but they do develop the capacity to hear television stimuli. This does not mean that they can comprehend what they see and hear.
- Television does however attract the attention of and engage very young children, albeit in short bursts, but not in the same way as it does for adults and older children
- Children need to learn what to look at on TV, where, when and what

Background TV and under 2s

- Study of 13 families with 11-13 month old babies TV was on all the time in one of the home (average 11.9 hrs/day, 2005) but not programs for others. These parents set a control for the young children's language development. Parents of children of TV operating in the home, from the same study (Vol 183, 2005, in Wartella, Richert & Robb 2010, diminishing social, cognitive, play and communication language development.
- Parents have been found to spend 21% less time interacting and playing with their children when the TV is on. Also any two children and has died to monitor parents children play. (Anderson, Murphy, Espin, Anderson & Coleman 2008)
- TV has been found to distract infants from play.
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NAEYC and Fred Rogers Center for Early Learning and Children's Media statement

- “...young children need tools that help them explore, create, problem solve, consider, think, listen and view critically, make decisions, observe, document, research, investigate ideas, demonstrate learning, take turns, and learn with and from each other” (p. 6)
- TV viewing is a passive activity, that does not involve interaction so it does not meet these criteria.

TV and children under 2 years

- TV for under 2s is not recommended for children's development is promoted here by direct interaction with parents and caregivers (Shields & Shields, 2000).
- Under 2 years children do not have the perceptual capacities needed to make TV meaningful, particularly visually, so it is highly disruptive from other activities. Also, they may be the stimulation which is particularly engaging it is in comparison to what they are seeing on TV to a representation of reality (Weinstein, Zuckerman 1973).
- Courage and Setliff (2010) observed that disassociation does not regard TV and video as being formed, at times. The first is the most distressing, and includes (患儿). TV viewing is a passive activity, that does not involve interaction so it does not meet these criteria.
- Children's brains are too immature to process television images until 6 months of age, but they do develop the capacity to hear television stimuli.
- The effectiveness of Baby Einstein videos or equivalent.

Background TV, children's play and learning

- If learning requires attention, then we need to separate attention getting from attention holding. The first is about distraction and does not involve information processing whereas the second does. (Courage et al 2010) leading to the idea that if children are to benefit from whatever activity they are undertaking, sustained attention is an important factor. These are implications for children's learning when they are playing with toys in front of the TV.
- Courage et al (2010) found that children 6-18 months preferred the toys when they were in the presence of both, however they still mentioned the TV and were very constantly distracted from their play play by the TV. We know that sustained attention is a key part of the development of executive functioning which is a much needed academic and indeed life capacity, (building ideas in working memory, cognitive inhibition and cognitive flexibility)
Researchers have found that 3.5 and 4 year old children’s attention and as a result task performance is disrupted by the continuous distraction of TV. They were not able to tune it out (Kaminski & Colombo 2007). They also found that when the TV was turned off there was a significant increase in attention spans, good for children’s learning outcomes. Hans and Holz (2005) noted that 3.5 year olds scored the same on standardized language tests when watching television as those who did not.

Children who played with background TV were found to have shorter play episodes and exhibited less concentration than did children who played without background TV (Hart, Pempek, Anderson, Schmidt, & Kirkorian 2009).

"service (and returns) type interactions with technology and media should be pleasurable and supportive, not disruptive, engendering a desire to continue the activity. (Children and Media PBS n.d.; Moses 2008).”

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References