

## **Is Television compatible with the care and education of babies and toddlers?**

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Last year, the Australian government introduced television viewing guidelines for early childhood services, with implications that applied to all carers, including parents of young children.

The Australian guidelines were consistent with the recommendation from the American Academy of Pediatrics of 'no screen time' for the 0 to 2 year olds, and the response was swift and strong – and mostly critical. Ironically of course, it was through the media that most people heard about the guidelines, and read about the 'response'. (That's a side issue, but while the media does not 'tell us what to think', it does set the agenda for what we think and talk about!)

In Britain *The Guardian* newspaper reported on the 'outrage' that greeted the Australian guidelines, which the article parodied as "*Get out of our living rooms. This country is in danger of becoming a politically controlled nation closer to communist China. That's all very well if you have three hours to wash the dishes, but some of us need to get things done. Gee, these toddlers are up to no good. What are they up to? Wait for it – they're watching television!*" (Patrick Barkham 'Television – Not in Front of the Children? October 14, 2009)

Put like that, of course, it seems ridiculous to suggest that busy parents shouldn't even use television to entertain their young children, while they get on with all their daily domestic chores. According to some in the media, the guidelines were devised by interfering 'know it alls' who don't live in the 'real world' and are part of a conspiracy to add to the burden of guilt already experienced by parents. Apparently I'm one of those 'know it alls' because I developed a Policy Brief (that included government advisers and ministers in its audience) on 'The Impact of Television on Early Childhood Development'. This paper is based on that Policy Brief. It, together with 'Get up and Grow guidelines for healthy eating and exercise' for Australian children, also developed at the Centre for Community Child Health at the Royal Children's Hospital, contributed to the Australian Government's guidelines.

One of the panel of reviewers the Centre uses for its publications echoed the media-reported 'outrage', and criticised the Policy Brief, not in terms of whether or not the research it cited was credible, but by suggesting I 'get real'. In the 'real world', parents and carers are apparently not to be informed about any harm that television may be causing their babies and toddlers.

Believe me, if the research evidence showed that television was beneficial to very young children, or even if it showed that its impact was neutral, I would 'get real' and shut up. But the evidence suggests something quite the opposite.

As the article in *The Guardian* went on to say, exposure to television is associated with a range of problems – and there is no evidence that there is any benefit whatsoever for babies and toddlers aged 2 and younger. A growing body of evidence now highlights a range of negative impacts on early development. Let's put this in some context.

Television is, to some extent, an ongoing social experiment. We know that it has changed, and continues to change the way we all live, the ways in which families interact (how and when we eat our meals, for example), and the experiences of childhood have been shaped in many ways in response to and to accommodate television. And that's just for starters. Television is ubiquitous - it's the background (and sometimes, the foreground experience) of our lives. We are probably familiar with much of this, (but I think it's worth briefly reflecting on) and this familiarity is, I suspect one of the reasons that television is regarded as a bit of a non-issue in many circles and why some of the media response to the Australian Government's guidelines was less considered than it deserved to be.

Since television first began transmission, concerns have been raised and its pros and cons have been debated. The concerns have in many ways reflected the prevailing fears and sometimes panics, of wider society – initially about youth (invoking images of 'square-eyed', undisciplined and gullible youth, held in the thrall of North American culture). This was of course, the time in history when teenagers became a recognised social category – neither adult nor child. These sorts of concerns are shaped by perception and anecdote – not by real research, and these particular concerns have largely disappeared.

Concerns about the actual *content* of television are as old as television transmission itself, with debates particularly focusing on the impact of viewing violent content. More recently a new concern about the link between television viewing and obesity has emerged – with interest in both the lack of physical activity and the advertising of junk foods. Obesity is of course, one of *the* issues that Western society is preoccupied with. When I was developing the Policy Brief, I had difficulty getting the reviewers off the subject. Surprisingly to me, it seemed that this was the biggest issue of concern. I'll return to obesity later.

To some extent, all the previous concerns still prevail and they deserve attention, but they don't tell the whole story. Nor do they recognise the different ways in which children (including babies and toddlers) currently consume television.

Babies and very young children have been virtually ignored as an audience of television. It's as though we assume that this age group is somehow immune to the impact and influences of television. Babies in particular have been until very recently an invisible audience – and for some people it may seem odd even to think of babies as an audience or consumers of media. Do they actually *watch* television is what I'm frequently asked. And, if they do, what do they see?

I think the more relevant question is, what do they *experience*? And, of course, if they are in front of a television, what *aren't* they experiencing, and what are the effects of this?

But television is particularly significant in early childhood: it is an integral part of the environment in which early childhood development occurs, to the extent that we can say: "children in the twenty-first century typically develop in front of a screen" (Calvert and Wilson, 2008). The interconnection between early childhood development and television begins at the start of life, with babies fed while mothers watch (the only research I'm aware of that considered this triad of mother, baby and television was conducted in maternity hospitals in Israel and is now decades old – it drew no conclusions, but simply observed that, even in the hospital, and therefore in the first hours and days of life, television was the background to and competing with the baby for the mother's attention).

Television is used as a 'baby-sitter', even from earliest infancy (Edgar and Edgar, 2009), making exposure to television one of the most enduring and consistent experiences of childhood, and arguably one of the most powerful in its impact. Families may split and separate or move on, but television goes on. For an increasing number of young children, television is one of the few certainties in their uncertain lives.

Despite this, attention has only recently been given to the impact of television on infants and very young children. This is surprising, given what we now all understand about early brain development and the significance of early experiences in shaping its architecture – building the neural connections. The brain development research has helped us to really understand that the first two years of the baby's life matter profoundly: childhood is not a simple linear progression from simple to more complex and the impact of television differs at different ages.

The research highlights the absolute importance of *relationships* to early development.

As anyone who is familiar with Dr Donald Winnicott (the 'father of infant mental health'):

*'there is no such thing as a baby; there is always a baby and someone' – and in Australia at least, that person is probably watching TV!*

Cognitive, social-emotional and physical development is occurring while babies and toddlers experience both background and foreground exposure to television. Background television includes the 30 percent of Australian households that have television on virtually all the time. Background television is also present in Doctors' waiting rooms, airports and cafes, for example. But foreground, or intentional viewing of television, is also significant: *babies watch television*, it's not simply incidental wallpaper to their lives. At 4 months, Australian babies watch an average of 44 minutes per day.

Ron Lally (Co-Director of West-Ed Centre for Child and Family Studies and an expert of early development) talks about "identity messages" arising from the interaction between infants and caregivers. These identity messages are not direct messages but arise from how we interact with and respond to babies – and they reflect the environment we provide for babies and toddlers. Identity messages create perceptions of how the baby sees their world – at its most simple, an identity message for the infant is "this is the way the world is: I cry and they come, for example or, I cry and they don't come". Identity messages are present from the moment of birth and so is television. The identity messages babies receive from their carers may be modified when television is on – television competes for attention. So, not "I cry and they don't come" for example, but "I cry and they say 'ssh, I'm watching TV". What's the identity message in that?

In 2004, The Royal Australasian College of Physicians (Paediatrics & Child Health Division) formulated a Paediatric Policy that unequivocally identified the media as an important issue in relation to child health, well-being and development ('Children and the media: Advocating for the future', RACP: Paediatrics & Child Health Division, 2004).

As I've briefly mentioned, the child development that is being affected by exposure to television includes the brain, as well as the ways in which children see and understand the world and their place in it.

So how much television are babies and toddlers experiencing? Young children are heavy consumers of television. Recent Australian data show that very young children typically spend more time watching television than in any single other waking activity (Australian Communications and Media Authority report: 'Children's viewing patterns on Commercial Free-to-air and Subscription Television, 2007). That alone should be cause for concern. But the 0 to 4 year old group watched more hours of television than any other children's age group. They watched an average of 154 minutes per day of free-to-air television (10 minutes more per day than the average time spent by the whole group of 0 to 14 years old). Commercial television accounted for the majority of television viewing on free-to-air. I won't be discussing what this means for early childhood development - except to say that it involves covert and overt socialisation into the values, norms and practices of consumer culture. I'm sure you've all seen the outcomes of this in some form or another.

In households with pay television, hours spent viewing television rose – overall to an average of 177 minutes for the 0 to 14 year old group, and 194 minutes for the 0 to 4 year old group. That's an additional 52 minutes, or nearly a whole extra hour of viewing every day for this age group.

A key issue flagged by the Royal Australasian College of Physicians is that television is increasingly watched by young children on their own, without the presence of a parent to regulate or mediate their experiences: *'media technologies potentially bypass parents, our society's traditional gatekeepers for the developing child. They allow content ... to be delivered directly to the mind of the child'*.

Reflecting this, children do not exclusively, or even preferentially watch designated children's programs. ACMA's 2007 report, for example, provided details of what programs were being watched by different age groups. In the 0 to 4 year old group, Bob the Builder was the number one program, but The Biggest Loser occupied 3 of the top 50 places for this age group. Let me repeat that: the Biggest Loser was one of the favourite television programs watched by Australian children, aged 0 to 4, in 2007. I'll come back to this shortly.

Traditionally, concerns about television and children that have focused on the content of television programs have been focused on violent and more recently, sexualised content (and the increasing connection between violence and sex). There are more subtle issues when children are choosing to watch programs such as Biggest Loser – what are the messages from these programs? Who are the heroes? (and how do they achieve 'hero' status? Who are the role-models?

Concerns also focus on the *amount of time* spent watching television, as the negative effects of television increase as exposure increases. The related issue of what children are *not* doing when they are watching television links directly to more recent concerns about childhood obesity. These concerns remain and are worth briefly reviewing.

According to the Royal Australasian College of Physicians, viewing violence is associated with a range of problems including: desensitisation; a lack of empathy with victims of violence; an increased tendency to aggression; and the perception of the world as scary (RACP, 2004). Violent content may also suggest to children that violence is inevitable, and a normal and acceptable way to resolve conflict.

The RACP actually suggests that asking how much television a child watches should be included in health and development checks – it's an identified risk factor.

These effects are not just social and emotional (as though that is not enough to raise concerns): some evidence suggests that “repeated exposure to violent content in the media modifies brain function. The consequences of this could lead to a blunting, or desensitisation to the emotional effects of violence...”.(RACP, 2004). Viewing violence does not make all children violent, but the evidence suggests that for some children (i.e. those with a genetic predisposition) viewing violence may trigger the expression of specific genes, and alter the architecture of the brain (RACP, 2004).

The RACP noted that the cumulative effects of these small modifications in brain function, collectively could change society – we are probably familiar with the concerns about some children acting out the violent scenes they have watched on television (and of course, increasingly accessed via the Internet – but that’s another story!) – but this small note by the RACP is one that I think we need to consider very seriously.

At the start of my talk I mentioned current concerns about childhood obesity. The growing incidence of childhood obesity is linked to television viewing. An Australian study found that watching 20 hours or more of television per week doubled the risk of being overweight or obese compared with children who watch less television (Wake et al, cited in ACMA, Dec 2007). It’s quite interesting to reflect back on the most popular television programs watched by Australian children aged 0 – 4. Research also now demonstrates a link between adiposity (higher fat mass) and more TV viewing with smaller increases in bone area and bone mass in preschoolers (Wosje et al, 2009). What this means is that there is a correlation between television viewing, obesity and less of the physical activity that’s needed to build bone area and bone mass.

While there is evidence that children aged three and over may gain from exposure to *educational media* this is not the case for children aged two and younger(Kirkorian et al, 2008) . More recent concerns relating specifically to very early development include a focus on language development and play. Language development is one of the key developmental tasks of early childhood: it is promoted by certain types of experiences, including interactions with adults (Christakis et al, 2009). A recent US study of young children aged 2 – 48 months found that language development is negatively affected when televisions are on. Parent- child vocal interactions significantly decreased when television was audible. The study showed that adults spoke less to young children, who in turn responded with fewer vocalisations.

A correlation between exposure to background television and delayed language development was also found in a study by Chonchaiya et al, 2008 The study highlighted the relationship between the distracting and interfering effects of background television on the child’s attempts at toy play and family interaction and noted a ‘negative impact on the dynamics and interactive process of developing language milestones in children’.

Background television exposure was also an issue in a recent, small U.S. study (Schmidt et al,2008) that demonstrated that exposure to background television disrupts children’s play behaviour. Think about all we know about the importance of play in learning, development and well-being.

Television viewing also negatively affects the quality of children’s sleep, with studies reporting effects ranging from sleep-onset delay to sleep anxiety (ACMA, December 2007). While most of the research focuses on older children ( 4 – 10 years old), an association between television viewing and irregular sleep schedules has been

identified in infants and children younger than three years of age (Thompson, D.A. & Christakis, D.A, 2005).

Sleep is not an incidental issue to early childhood development. All children need sleep: poor quality, disrupted sleep and inadequate sleep present serious problems for all aspects of early development.

More generally, a literature review Nunez-Smith, et al (2008) identified 173 quantitative studies on the relationship between media and seven health outcomes, or what happens later in life. Those 7 outcomes related to: childhood obesity, tobacco use, drug use, alcohol use, low academic achievement, sexual behaviour and attention deficit disorder with hyperactivity. Of the studies considered, 80% found greater media exposure associated with negative health outcomes for children and adolescents. Of studies examining media content, 93% found associations between increased media exposure and negative health outcomes. Similarly, 75% of studies evaluating sheer quantity of media exposure reported an association with a negative health outcome.

Importantly, there was no health outcome identified for which increased media exposure is associated with a positive health outcome (ibid). And even more importantly, the risks and negative outcomes increased as television exposure increased.

The compelling evidence about the importance of early experiences (including relationships) in the development or 'architecture' of the brain, as well as in physical, social and emotional development, together with the growing evidence of the negative impact of television on early childhood development has implications for early childhood education and care settings that need to be carefully considered.

Minimising harm is a key consideration, with the American Academy of Pediatrics (AAP) recommending 'no screen' exposure before age two (as I noted at the start of this paper). Turning off televisions is necessary, but we need also to build environments that nurture optimal development. Relationships are crucial to this: face-to-face interactions and responsive, engaged relationships provide the foundation for all child development. For young children, particularly for infants and children under the age of two, television is incompatible with the 'hands on' experiences and the responsive, engaged relationships that scaffold and optimise their development.

Childhood is a period during which identity and sense of self is navigated and negotiated through interactions with agents of socialisation that include the family, childcare, schools and the media. The family is the *primary* agent of socialisation – primary both in the sense of being the first and the most important – but television's influence may compete with the values, cultural mores and collective identity of the family. Television, also, is a particularly powerful agent of socialisation through which children simultaneously learn and shape their own sense of self – their sense of who they are, how they are positioned in the world, and what that world is like. How the world in general, and our society in particular, is represented actually matters – especially when children may limited access to alternative representations.

But as I've discussed here, the content of television is not the only issue.

This paper asks the question: "Is television compatible with the care and education of babies and toddlers?"

The short answer is 'no'. The longer answer is that we owe babies and toddlers better experiences.

We do know about the significance of early experiences in the earliest period of development, and we know about life trajectories that begin even before birth. And we understand development, health and well-being to be complex and interconnected.

In this talk, I've outlined negative effects of television both on babies and toddlers that impact upon:

- Social and emotional development
- Behaviour
- Play
- Language development obesity
- Family/carer and child interactions
- Sleep

Babies don't chose to watch television, they are a captive audience.

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