Objective There is conflicting evidence on the association between television viewing in childhood and cognition. No recent UK and few worldwide studies have looked at the longer-term effects of television viewing in childhood. This study investigates the association between verbal and non-verbal cognitive outcomes at 7 years and television habits at 3, 5 and 7 years.

Method The study comprises longitudinal and cross-sectional analysis of the United Kingdom Millennium Cohort Study based on 8,148 children with complete data on variables of interest, maternal reports of television viewing and scores from objective tests of cognitive ability (British Ability Scales Second Edition) collected when cohort members were 3, 5 and 7 years. Mean ability scores were converted into the equivalent progress expected in a child at each age group using existing age equivalents derived for the cohort study population. Linear regression was used to estimate the relationship between each subscale and categories of television viewing (in relation to a reference group who watched between 1–3 hours of television a weekday) after adjustment for co-variates.

Results Children who did not watch television at 3 years had verbal ability scores at 7 years approximately 7 months behind the reference group (p < 0.05); their non-verbal ability scores were approximately 12 months delayed (p < 0.05). Children who watched less than 1 hour a weekday had delayed non-verbal skills of approximately 2 months (p < 0.05).

There was no significant association between television viewing at 5 and verbal or non-verbal ability at 7 years.

Children who did not watch television at 7 years had verbal ability scores approximately 5 months ahead of the reference group (p < 0.05). Those who watched less than 1 hour a weekday were approximately 1 month ahead (p < 0.05). Children who watched over 3 hours of television a weekday had delays of more than 1 month (p < 0.05). There was no significant association between television viewing at 7 years and non-verbal ability.

Conclusion There was a positive association between television viewing at 3 years and verbal and non-verbal cognition at 7 years in this cohort but a negative association between television viewing at 7 years and verbal skills at 7 years. This may influence potential guidance on television viewing. Possible explanations are the type of programmes watched or accumulation of viewing hours.

Abstracts

G213 HOW DOES THE PATTERNS OF BRUISING RELATE TO THE MECHANISM OF INJURY IN CHILDREN?

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Objective It is essential that paediatricians assessing a child with bruising in suspected physical abuse can identify when the explanation for the bruise is implausible. Several published studies describe bruising patterns in populations of abused and non-abused children but we are not aware of any that describe the relationship between mechanism of injury and bruise pattern.

Methods Details of the mechanism of unintentional injury, the number of bruises, location and size were recorded for: children aged 0–11 years attending a Children’s Emergency Department (ED) at a tertiary centre and children in the community (4–11 years at school, 0–4 year olds at two nurseries) with bruises of known cause. Students T-test, Chi-squared and Fisher’s exact test were used to analyse associations between mechanisms and bruise patterns.

Results 851 children were recruited. Nine mechanisms of injury were recorded (Table 1). 81% (p < 0.001) of non-ambulant children (mean age = 9.9 months, SD = 6.3) sustained impact injuries whilst 60% of ambulant children (mean age = 41.7 months, SD = 30.4) fell from <1m or standing height (p < 0.001). The majority of children presented with small (mean size = 17.4mm, range = 2–115mm (ED), 1–75mm (Community)), and single (86.9%) bruises related to each incident.

Falls from <1m, falls from standing height hitting an object and impact injuries accounted for 79.5% (279/351) of all incidents. Bruises were most commonly found on the forehead (n = 114, 39.7%) knees and shins (n = 88, 22.9%) and head (n = 59, 10.2%) whilst bruising to certain areas were rare e.g. the front trunk (1.3%), back of thigh (0.9%) and genitalia (0.5%).

Conclusion The data demonstrate predominant injury mechanisms for unintentional injury in children that relate to child’s level of development. Multiple bruises from a single incident were rare, bruises were small and predominantly to the forehead, knees and shins and head. This predictable pattern of unintentional bruising can aid clinicians to judge the likelihood that a pattern of bruising is consistent with the mechanism of injury, and improve the detection of physical abuse where bruising pattern does NOT fit with a proposed mechanism.