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Martin P Ward Platt

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Demand weaning: infants’ answer to professionals’ dilemmas

Martin P Ward Platt

Few matters in childcare are more emotionally charged than the “when”, “what” and “how” of introducing solid foods to the infant diet. And of these, it is the “when” that has been the main focus of official advice from authoritative professionals for the last 50 years or so, as we have sought a rational basis for telling mothers when they are allowed to give their children solids for the first time. Interestingly, neither the mothers nor the babies have taken much notice of this officious advice, and most have quietly gone their own way even if it means fibbing a little to their general practitioner, health visitor or paediatrician to avoid judgmental remarks.

The weaning debate has been largely predicated on the notion that there is some magic age at which, or from which, it is in some sense “safe” or “optimal” to introduce solids. Yet it is highly counter-intuitive that such an age exists. In what other area of developmental biology is there any such rigid age threshold for anything? We all recognise that age thresholds are legal inventions to create workable rules and definitions, and have no meaning in physiology or development, yet when we talk about weaning we seem to forget this.

To make matters worse, the World Health Organization (WHO) recommendation to breast feed exclusively for the first 6 months has somehow been transmuted to a widely held understanding that infants, regardless of the milk on which they are initially fed, should not be given solids until they are 6 months old, as many readers will have learnt from talking to parents. The reason for this misconception is not clear, yet the WHO recommendation itself rests on shaky foundations, as even a cursory examination of the literature reveals. There may be settings in which the recommendation is appropriate, but the very fact that the WHO statement is “one size fits all” undermines its own credibility, especially in the developed world. The current research debate is whether 4 months, 6 months or a window between the two, should be taken as the “optimal” age for introducing solids. But these are arbitrary numbers derived both from the choice of age in the few randomised controlled studies to have addressed the effects of earlier or later introduction of solids, and from the WHO recommendations themselves. They have no external validity, and no developmental meaning.

Perspective on the paper by Quigley et al (see page 148)

The paper in this issue by Quigley et al helps to quench the myth that the timing of the introduction of solids actually matters at all. Quigley et al had the advantage of a very large and powerful dataset from the Millennium Cohort Study, and were able to control for many important confounders. Their findings – that the “early” introduction of solids to infants was not associated with any apparent harm – are supported by several other studies. I am particularly fond of the papers published from the investigation among the mountain people in north Thailand in the late 1980s, in which there was no discernible disadvantage associated with the local cultural practice whereby mothers would give otherwise fully breast fed babies pre-masticated solid food within a few days of birth.

The findings of Quigley et al are also supported by a recent systematic review. This review timidly concluded that “…the evidence is insufficient to support a change in the current infant feeding recommendations for the optimal age of introduction of solid foods into the diet of an infant”. It would have been an equally valid interpretation of the results to have written “current recommendations for the optimal age for the introduction of solid food to the infant diet have no foundation in the existing evidence base, and the published evidence does not support the contention that such an age exists”.

Where does this leave us? Professionals continue to have a powerful belief, unperturbed by the existence of inconveniently contrary evidence, that there is an optimal age or age range for the introduction of solids, and that infants fed solids before this will be in some way harmed; if only we could do the right science, we will find this magic age. Parents have consistently ignored professional recommendations on the matter, certainly for the last half-century (and probably since the dawn of time). Perhaps it is time for us to acknowledge that when randomised controlled trials, the recent meta-analysis, and now Quigley et al’s large cohort study, seek and fail to find evidence for harm in the early introduction of solids, then perhaps there is no harm, or if there is, it is so tiny that it remains effectively undetectable. And perhaps it is also time to acknowledge that parents may have a point, and to consider the infant’s perspective.

Any reader who is also a parent, and any other person who has talked to parents about it, will be familiar with the fact that infants come to an age when they give behavioural cues about wanting something more than just milk. These cues include completing a good feed, then looking round for a dessert; waking in the night for food, when for several weeks previously they had been sleeping through; shortening a previously lengthy feed interval during the day; and starting to take an obsessive interest in the food being consumed by older members of the household. The objective literature quantifying these behaviours is not extensive, but some does exist, and this, together with the everyday experience of parents, suggests that infants come to a developmental point where they actively encourage their parents to offer solid food. The actual age at which this happens is highly variable.

The observation that these infant cues exist, and that adults respond to them, is entirely consistent with other infant–adult dyadic behaviours that can be seen to develop as infants mature and is also consistent with the recognition that infants should be fed on demand when they are still fully milk fed. Why should anyone be surprised that there will come a point when infants might demand something different? It is just as illogical to mandate that infants should not receive solids until some predetermined age as it was to insist on a standardised feed interval for milk fed babies.

Correspondence to: Dr M P Ward Platt, Ward 35, Royal Victoria Infirmary, Newcastle upon Tyne NE1 4LP, UK; m.p.ward-platt@ncl.ac.uk
This points to a way forward that we might all be able to live with: demand weaning. This concept does away with the notion of a magic age for introducing solids, recognises the behavioural cues that parents pick up yet which as professionals we seem to ignore (except in our own children), and allows the baby to determine the initiation of the weaning process just as the baby determines the feed/fast cycle of milk feeding. It enables parents to do what they have always done without feeling forced to adjust the truth to avoid being rebuked by professionals, and it enables professionals to shift the emphasis from mythical harms to normal biological development.

The concept of demand weaning also opens up a fertile area for future research. What might be the drivers behind the onset of infants’ behavioural cues? Does the onset of these behaviours correlate with the establishment of adult-type circadian rhythms? Are they the result of neurodevelopmental maturation, an alteration in the hormonal gut–pancreas–brain–body fat axis, an incipient shortage of iron or zinc, or something else entirely?

The challenge for us as professionals is to learn that demand weaning is a normal and appropriate infant behaviour that we can encourage, rather than a naughty parental behaviour that subverts our belief that we are the professional arbiters of infant care. Demand weaning is here to stay because it is what most infants, and their parents, actually do.

Competing interests: None.

REFERENCES


Perspectives

Wayward words and watchful waiting: should clinicians be more proactive for the preschooler with uncomplicated expressive language delay?

Anne E O’Hare

Buschmann’s randomised controlled trial in which 2-year-old children with specific expressive language delay were exposed to an intervention with a parent based programme purports to demonstrate significant improvement and challenges the complacency of the “watch and wait” policy for such children. Do these findings plug one of the many gaps in our evidence base with which we try to judge the role of assessment and interventions in the screening and surveillance of language acquisition difficulties? Do they run counter to the conclusions of the UK National Screening Committee Child Health Subgroup report on speech and language delay in May 2005 in which the clinician is assured that there is a good prognosis for isolated expressive language delay presenting under the age of 3 and that watchful waiting is a reasonable approach unless the parent is very worried?

Firstly we need to examine the rigor and design of this trial and then we can return to the question as to how relevant its findings are to everyday clinical practice. The trial benefits from some strong design features such as blinded randomisation and outcome assessments, but it is not perfect and two concerns that might affect translation into everyday practice are the failure to analyse data according to intention to treat and the lack of detail as to how potential participants were identified.

Participating children and their families were referred by clinicians delivering a population-wide free routine developmental check-up in Germany. The authors made the important observation that good outcomes for treated children were not frustrated by lower maternal education and socio-economic status, as these can be critical factors in language delay and parent programmes. However, we do not know how typical these children and their parents were of the entire population offered the check-up; we cannot be certain that non-compliant parents had not already evaded the developmental check-up or indeed were excluded in the subsequent analysis as they dropped out of the intervention. This is important when considering relevance to everyday practice as there may be significant progress in children’s expressive language skills if the intervention is delivered through a specialised pre-school curriculum and for some high risk sectors of the community, this may be a more effective way to reach the children. The trial does not report on why some parents dropped out of the intervention and indeed the authors may not know. The authors also mention towards the end of the paper that some children received individual therapy, but it is not clear why and to what extent this may have influenced the compliance and the response to intervention.

Perspective on the paper by Buschmann et al (see page 110)

Buschmann’s trial appropriately aims for homogeneity of participants in order to achieve adequate powering. However, how practical is it to identify children with these pure expressive difficulties at the age of 2 years? Lack of speech development is fairly salient for parents and the children identified in this trial as