"A very fun and messy journey": An evaluation of the HENRY Starting Solids Workshop and its impact upon complementary feeding practices. Executive Summary.

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1. Context

In Spring 2020, Swansea University were commissioned to undertake an evaluation of the HENRY Starting Solids workshop. This workshop is designed to prepare parents and carers to introduce solid foods to their baby including consideration of suitable foods, portion sizes, responsive feeding and safety. It aims to increase knowledge, confidence and support healthy infant feeding behaviours. This evaluation sought to explore the impact of the workshop upon timing of solid foods, foods offered, responsive feeding and parental confidence. It used a mixed methods longitudinal design to measure outcomes from pre workshop to 12 months of age. Data collection and analysis was carried out independently by the research team.

2. Background

Experiences during the first year of life can shape eating habits throughout the early years and beyond.¹ Supporting energy balance, encouraging nutrient dense food choices, and promoting acceptance of a wide range of foods are important behaviours that are associated with a healthy weight, alongside health and behavioural outcomes during childhood and into adulthood.² This journey begins in infancy with decisions made around milk feeding and the period when infants are first introduced to solid foods having the potential to influence later weight gain and healthy eating patterns.³

Guidelines around introducing solid foods recommend that infants should be offered a variety of family foods at around six months of age.⁴ There should be a focus on new tastes and textures, balancing small amounts of nutritiously dense foods with a diet that remains

predominantly breast or formula milk until the end of the first year. Parents and carers should adopt responsive feeding practices by offering healthy options but allowing babies to follow their own internal signs of hunger and satiety. Mealtimes should be a social and enjoyable experience, giving babies opportunities to joined in shared family mealtimes.⁵

Despite these guidelines many parents in the UK introduce solid foods before this time.⁶ In addition, intake of fruits and vegetables and healthy proteins and fats can be low, with a reliance on commercial products and snack foods that are often high in sugar.⁷ Alongside this there are a lot of misperceptions about signs of readiness for starting solids including waking in the night or being a 'big baby'.⁸ These are often fuelled by family and friends who may pressure parents to start solids early.⁹

This can leave parents feeling unsure and anxious about starting solids, with many feeling that there is not sufficient information and guidance to support them. ¹⁰ In light of this HENRY, a charity which supports parents in healthy infant feeding, designed a 'Starting solids' workshop to improve parental knowledge, confidence and decisions around starting solid foods. The workshop covers timing, signs of readiness, which foods to give, safety and how to make mealtimes enjoyable. In terms of participation in the workshops, in 2020 around 360 parent/carers took part. This rose to around 930 in 2021, with around 720 participants in the first half of 2022. Usually, the workshop is delivered face to face but the Covid-19 pandemic necessitated a switch to online delivery.

The aim of this report was to evaluate the impact of the Starting Solids workshop upon parents and carers knowledge, confidence and decisions around starting solids and feeding their baby and use workshop participant reflections to better understand and develop the workshop in the future.

3. Methodology

The study consisted of four data collection periods, designed as a rolling longitudinal study. Data were collected between August 2020 and March 2022. All participants who took part in a Starting Solids workshop between August 2020 and December 2021 were invited to take part in stages one to three with an invite to participants whose baby was aged 9-15 months during January – March 2022 to take part in stage four. Participation in the workshop was

separate to participation in the research and participants were free to opt out at any time. The four stages of data collection included:

- Stage one: A pre workshop questionnaire sent to all workshop participants on enrolment (867 parents/ carers took part). The questionnaire included demographic information, knowledge about introducing solid foods e.g., timing, signs of readiness, confidence, and beliefs about starting solids.
- Stage two: A post workshop questionnaire sent to all workshop participants after they had completed the workshop (439 parents / carers took part). This questionnaire repeated questions from questionnaire one to measure any change, alongside exploring experiences of taking part in the workshop. It also asked participants consent to be contacted to take part in a further survey when their baby was six months old.
- Stage three: A follow up questionnaire when their baby reached six months for those who
 consented to continue taking part (58 parents/ carers took part). This questionnaire
 explored experiences of introducing solid foods, knowledge and confidence and a
 reflection on how the workshop did or did not help with the process.
- Stage four: An invite to take part in a semi structured interview when their baby was aged
 9 15 months between January March 2022 (11 mothers took part). Interview questions
 explored timing and method of solid food introduction, confidence and knowledge,
 feeding behaviours e.g. responsive feeding, and perceptions of the HENRY workshop.

Data collection coincided with the COVID-19 lockdown and social distancing regulations required that all data was collected remotely. The implications of this approach are considered in the discussion. Approval for this study was granted by Swansea University College of Human and Health Sciences Research Ethics Committee.

4. Key findings

Overall, our findings showed that the HENRY Starting Solids workshop was highly valued by parents and carers who took part. It increased knowledge around how to introduce solid foods and signs of readiness alongside improving confidence across a range of different

aspects of infant feeding. Notably, although many workshop participants were aware of guidance to start solid foods at around six months and planned to do so, many lacked certainty in *how* to do this. The workshop gave them the knowledge, skills and confidence to introduce their baby to a range of tastes, focussing on responsiveness and mealtime experience rather than amount consumed. Key highlights included:

The workshop increased the proportion of parents / carers who understood and planned to introduce solids at around six months of age:

- Pre workshop 87% of participants identified 'around six months' as the most appropriate time to introduce solid foods, rising to 96% post workshop.
- Pre workshop 85% of participants planned to introduce solid foods at 'around six months', rising to 91% post workshop.
- 70% of participants who completed survey three and almost all interview participants introduced solids at around six months. However, around 20% of parents / carers introduced solid foods before six months, typically for spurious reasons such as waking at night or being a 'big' baby.

The workshop improved the diet that parents / carers offered to their baby

- First foods offered were typically vegetables or fruit, with vegetables being consumed
 daily by almost all infants. In the interviews mothers often mentioned the guidance to
 introduce 'vegetables first' as recommended in the workshop.
- The importance of finger foods and self-feeding was recognised, with many babies being
 introduced to these from the start of complementary feeding. Finger foods and selffeeding were a core part of most babies' diets at 6 8 months old.
- Pre workshop 71% planned to give their baby all or mainly home cooked foods pre
 workshop. This rose to 86% post workshop. Most parents / carers shared meals with
 their baby, although work schedules often interfered with this in the evening.
- Almost all parents / carers gave their baby commercial baby foods but sparingly,
 typically for convenience or as snacks when out and about. Mothers in the interviews
 often considered these foods to be different to offering 'adult' foods such as crisps.

The workshop enhanced knowledge of signs of readiness for solids:

- The number of parents / carers who believed incorrect signs of readiness for starting solid foods fell post workshop. For example, perceiving 'waking at night' to be a reason fell from 8% pre workshop to 3% post workshop, 'feeding more often' fell from 13% pre workshop to 4% post workshop and 'watching people eat' fell from 50% to 24%.
- Meanwhile, understanding of the importance of signs of physical developmental readiness for solid foods significantly increased. Although pre workshop most participants could identify at least one sign of physical readiness (such as sitting, holding head up, picking up food, swallowing food), just 12% could identify all four. This rose to 87% post workshop.
- In the interviews, mothers described looking out for physical signs of readiness before starting solids, with many attributing this knowledge to the Starting Solids workshop.

The workshop vastly improved parent / carer confidence in starting solids and feeding their baby a healthy diet:

- Although knowledge around when to introduce solid foods was high amongst participants, confidence in how to do so was low before the workshop with just 30 50% of parents / carers feeling confident around different aspects of starting solids beforehand. Post workshop this significantly increased to 80 90%.
- Some of the largest rises in parent/ carer confidence were seen for: How much solid food to give a baby (an increase from 21% to 83%), knowing which foods to give (an increase from 42% to 94%) and knowing when a baby has had enough to eat (an increase from 39% to 90%).
- Participants also grew more confident in terms of feeding their baby safely, with confidence in giving finger foods rising from 29% to 83% and confidence in avoiding choking rising from 29% to 81%. In the interviews mothers often described feeling nervous but were encouraged to try finger foods by the workshop.
- Confidence also grew in terms of broader cooking skills and mealtime experiences with confidence in preparing meals rising from 55% to 86% and making mealtimes enjoyable from 58% to 92%. Again, in the interviews mothers often recalled these messages, making a specific effort to sit with their baby and share food.

The workshop supported responsive feeding:

- Responsive feeding i.e., looking to a baby for signs of hunger and fullness and letting
 them set the pace of meals is associated with healthier weight gain and eating behaviour
 trajectories. The workshop had a significant impact upon participant knowledge and
 confidence of this, with 91% agreeing that they better understood the importance of
 responsive feeding post workshop.
- This impacted upon behaviour: 93% of parents / carers allowed their baby to determine
 when they were full although a quarter still sometimes tried to encourage their baby to
 finish a meal or offered their baby food if unsettled or upset to calm them.
- Some participants remained anxious around trusting their baby to regulate their intake of food. A third of parents / carers worried about their baby eating too much or too little, and in the interviews mothers talked about their anxieties around letting babies set the pace of meals and determine when they are full. However, many described how the workshop gave them greater confidence in trusting their baby and once they could see that their baby could regulate their intake, were happier to continue.

The workshop received glowing recommendations from parents and carers for both information and delivery

- Participants overwhelmingly enjoyed the workshop with 97% stating it helped them feel
 more informed, 95% more confident and 94% more aware of how to introduce solids
 safely to their baby. It was also well received with 98% stating it was easy to follow, 99%
 that it was informative and 98% that it was delivered in a friendly and relaxed way.
- 98% of parents / carers were glad that they attended the workshop and all mothers in the interviews would recommend the workshop to a friend.
- Suggestions to improve the workshops focussed on 'more' more content, a longer duration and additional sessions as babies grew older. Suggested topics included allergies, reducing milk feeds and feeding older babies and children.
- Experiences of taking part in online workshops due to COVID-19 were mixed. The value
 of being able to access the workshop privately at home was appreciated but some felt
 that they would have liked opportunity to meet other parents and ask questions face to
 face. Overall, participants felt that the option of online workshops should remain but
 that in person connection was important to for those who preferred this.

5. Key conclusions

The Starting Solids workshop was overwhelmingly well received by participants and was effective even when delivered online during a challenging time through the COVID-19 pandemic. Participants had few criticisms with recommendations focussed on expanding workshop content and duration. Almost all would recommend it to others due to its impact upon knowledge and confidence, but also the supportive and engaging way in which it was delivered. This enjoyment is likely key to engagement with the information presented. Parents and carers felt that the information given was nuanced and non-judgemental and thus trusted the information and the HENRY team over other competing sources of information such as family, friends or social media.

Most workshop participants had good knowledge around core aspects of starting solids such as when to start and what signs to look out for before the workshop. However, some participants still believed that babies should be introduced to solid foods earlier, with around one in five choosing to start solids before six months of age. Although it should be noted that this is much lower than the proportion who introduce solid foods early in studies such as the Infant Feeding Survey⁴, it shows that despite receiving evidence-based explanations as to why solids are recommended to be delayed until six months of age, other reasons lead parents to override this. Influence of family and friends remained strong, alongside low but persistent beliefs that solid foods would help a baby sleep – which are common barriers to following guidance.⁸ This raises the possibility of potentially extending workshops to influential family members such as grandmothers to ensure more hear evidence-based messaging.

However, despite most participants knowing the recommended timing of *when* to start solid foods, many were not feeling confident before the workshop about the wider process of *how* to do this. Parents and carers worried about what foods to give, in what quantity and how to do so safely. A core finding of this evaluation is the increase in confidence that participants felt after attending the workshop, which in turn affected how they introduced their baby to solid foods. This is an important finding as many parents worry about starting solids with their baby particularly in terms of what foods to give them and how to support the development of healthy eating habits in the longer term and this can lead to an early introduction and non-responsive feeding approaches if left unsupported.⁸⁻¹⁰

The knowledge, skills and confidence gained during the workshop directly impacted upon infant feeding decisions with parents / carers attributing the workshop to what foods they offered their baby, feeding styles and safety considerations. The workshop information was still clearly recalled amongst participants in the survey at 6-8 months and the interviews at 9-15 months. Examples of impact included recalling messages such as introducing more bitter tasting vegetables as first foods (rather than relying on sweeter fruits), trusting a baby to set the pace of the meal, and remembering that food at this age is as much of a learning experience as it is about nutrition and amounts consumed. Although there were areas for continued improvement such perhaps as further emphasis on understanding that baby snack foods are still snack foods, these core positive behaviours have all been associated with healthier weight gain trajectories and eating behaviour in a variety of research studies. $^{1-3}$

Indeed, when we think about 'starting solids' a lot of focus is often placed upon timing of first foods with many research studies using it as a key outcome measure. Timing is of course important and associated with later health outcomes, but it is important to remember that the experience of starting solids is much broader than this. The complementary feeding period is a time where taste foundations can be laid, babies encouraged to follow their own internal cues and family mealtimes encouraged. It was clear from the evaluation that the workshop is tackling these key issues and helping parents and carers to make healthier decisions around feeding their baby which may last long past the workshop.

6. References

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