Rethinking Responsive Feeding: New Insights from Bangladesh

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Feeding young children is a complex and nuanced process that goes far beyond simply providing nutritious food. How caregivers interact with children during mealtimes can have profound effects on eating behaviours, growth and development. An interdisciplinary team of researchers in early child health, nutrition, and development from RTI International, University of North Carolina-Chapel Hill, and the International Centre for Diarrhoeal Disease Research, Bangladesh, conducted groundbreaking work to refine our understanding of responsive feeding – the back-and-forth process between caregivers and children during mealtimes. Their research in Bangladesh provides new insights into measuring responsive feeding behaviours and highlights the importance of considering the emotional context of meals.

The Challenge of Childhood Malnutrition

Childhood malnutrition remains a critical global health issue, with at least one in three children under age five experiencing stunting, wasting or overweight. These early growth problems can have lifelong consequences for health, education and well-being.

While much attention has focused on providing adequate nutrition, experts increasingly recognise that how children are fed is just as important as what they are fed. Responsive feeding – where caregivers recognise and respond appropriately to children's hunger and fullness cues – has been shown to promote healthy growth and development. However, measuring responsive feeding behaviours has proved challenging, limiting our ability to study and promote these practices.

A New Approach to Measuring Responsive Feeding

To address this gap, the team set out to develop an improved way to measure responsive feeding that captures the back-and-forth nature of caregiver-child mealtime interactions. Their innovative approach incorporates key concepts from child development theory.

The researchers wanted to move beyond simply looking at whether caregivers were responsive or not. Instead, their goal was to capture the nuanced ways that responsiveness changes as children develop new feeding skills.

They focused on the idea that caregivers modulate between 'proximal' support – providing direct assistance as children learn new skills – and 'distal' support – stepping back to allow children to practice on their own. This modulation between proximal and distal responsiveness is thought to be key for promoting children's autonomy and self-regulation around eating.

Observing Mother-Child Mealtimes in Bangladesh

To test their new approach, the team conducted a study with 67 mothers and their children aged 6-18 months in Dhaka, Bangladesh. They video-recorded mothers feeding their children and trained Bangladeshi observers to rate the interactions using a validated scale.

Based on these observations, mother-child pairs were categorised as showing primarily proximal or distal responsiveness during the meal. The researchers also had mothers complete a questionnaire about their typical feeding practices and perceptions. They aimed to identify key questions that would predict whether a motherchild pair was likely to show proximal or distal responsiveness during mealtimes. This could potentially provide a simpler way to assess responsive feeding without needing to do time-intensive observations.

Key Findings on Responsive Feeding Patterns

The analysis revealed some surprising insights about the nature of responsive feeding. Mothers who showed more distal responsiveness during the observation - stepping back and allowing children to feed themselves - tended to report positioning the child so they could see the mother's face, perceiving their child as being in a happy mood during meals, and pressuring the child to eat.

At first glance, pressuring a child to eat may seem at odds with responsive feeding. However, the researchers emphasise that these behaviours need to be interpreted within the overall emotional context of the meal.

The authors explain that, in this case, the pressure to eat seemed to occur in an overall positive emotional tone, with mothers perceiving their children as happy. It may be that these mothers were providing gentle encouragement rather than forceful pressure.

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In contrast, mothers showing more proximal responsiveness – providing direct feeding assistance – reported feeling stressed during meals, being concerned that their child wasn't eating enough, talking to their child during meals, and being in a happy mood themselves. These findings highlight how maternal perceptions and emotions play a key role in feeding interactions. Mothers who were more worried about their child's intake tended to provide more hands-on support.

The Importance of Emotional Context

A key insight from the study is the importance of considering the overall emotional tone of mealtimes rather than looking at individual behaviours in isolation. Distal responsiveness - allowing children more autonomy in feeding - tended to occur in the context of mothers perceiving their children as happy and not being overly concerned about intake.

Proximal responsiveness, on the other hand, often occurred when mothers felt more worried about their child's eating, even if they still maintained a positive mood themselves. This suggests that maternal perceptions and emotions are closely tied to their feeding behaviours. The authors emphasise that their findings underscore that responsive feeding is about more than just responding to hunger and fullness cues – it's a complex emotional and social process.

Developing a Practical Measurement Tool

A goal of the study was to identify questions that could predict responsive feeding patterns without needing to do time-intensive observations. The researchers were able to narrow down their questionnaire to just nine items that showed excellent ability to differentiate between proximal and distal responsiveness. This is an important step towards developing a practical tool that could be used more widely to assess responsive feeding. Having a validated questionnaire could make it easier to study responsive feeding on a larger scale.

The team hopes this work will lay the groundwork for creating a globally applicable measure of responsive feeding. This could enable population-level tracking of responsive feeding practices and provide guidance when families may need additional support around feeding interactions.

Implications for Child Nutrition Programmes

The insights from this study have important implications for how we approach child feeding interventions. Rather than focusing solely on what foods to provide, programmes may need to consider how to support positive emotional climates during mealtimes.

Simply telling caregivers to be more responsive isn't enough. Instead, we need to consider caregivers' perceptions and concerns about their child's eating, as well as their own feelings about supporting their child as they modulate between proximal support and allowing autonomy as appropriate.

The researchers emphasise that responsive feeding patterns may vary as children gain more eating and communication skills and are likely to vary across cultures and contexts. More research is needed to understand how these concepts apply in different settings around the world. While this study provides an important foundation, it is just the beginning. The team is continuing to refine their understanding of responsive feeding to develop effective interventions.

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Next Steps for Responsive Feeding Research

Building on this work, the research team has several recommendations for future work. In addition to replicating and validating the responsive feeding questionnaire in other cultural contexts, longitudinal studies are needed to understand how responsive feeding patterns relate to children's growth and development over time. Intervention studies are needed to learn how to effectively promote responsive feeding practices through parenting interventions and to explore how responsive feeding relates to other aspects of nurturing care for young children.

Ultimately, the goal is to support caregivers in fostering healthy eating behaviours and growth in young children. By deepening our understanding of responsive feeding, we can develop more effective ways to promote optimal nutrition and development in the critical early years.

As this research progresses, it has the potential to reshape how we approach early childhood nutrition globally. By recognising feeding as a complex social and emotional process rather than simply a matter of providing calories, we may be able to more effectively tackle the persistent challenge of childhood malnutrition.

The work of this interdisciplinary team represents an important step towards this goal, providing new tools and insights to support responsive feeding around the world. As we continue to refine our understanding of these crucial caregiver-child interactions, we move closer to ensuring that all children have the opportunity to thrive and reach their full potential.

MEET THE RESEARCHER

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FURTHER READING

MM Black, SP Walker, O Attanasio, *et al.*, <u>Promoting Childhood</u> <u>Development Globally Through Caregiving Interventions</u>, *Pediatrics*, 2023, 151(Suppl 2), e2023060221B. DOI: <u>https://doi.org/10.1542/peds.2023-060221B</u>

MM Black, F Tofail, EA Hodges, *et al.*, <u>Rethinking Responsive</u> <u>Feeding: Insights from Bangladesh</u>, *Nutrients*, 2022, 14(15), 3156. DOI: https://doi.org/10.3390/nu14153156

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