Perspective

Self-Determination Theory as a Theoretical Framework for a Responsive Approach to Child Feeding

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ABSTRACT

Supporting positive childhood eating behaviors is a central and ongoing priority for health care providers, encompassing both health outcomes for typical eaters and best practice in relation to pediatric feeding challenges. Building on existing work, this perspective draws on literature from multiple fields to recommend the use of Self-Determination Theory as a framework for responsive feeding. Additionally, it contributes to the definition and conceptualization of responsive feeding. The 3 basic needs proposed by Self-Determination Theory (autonomy, relatedness and competence) have significant implications for both professional practice and the direction of future research.

Key Words: responsive feeding, child feeding, Self-Determination Theory, parental feeding practices, autonomy (J Nutr Educ Behav. 2020; 52:646—651.)

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INTRODUCTION

Nearly half of young children struggle with eating at some point,1 with avoidant eating and weight concerns increasingly being brought to the attention of health care providers such as pediatricians and dietitians. This article proposes that Self-Determination Theory (SDT) can provide a unifying psychosocial framework for a responsive approach to child feeding in the context of both typical and atypical eating. Such an approach is supportive of intrinsically motivated eating guided by internal cues of hunger and fullness. Self-Determination Theory was previously applied to hunger and fullness.21 This regulation, therefore, child feeding practices have implications across the life span.

Self-Determination Theory

Self-Determination Theory11,12 has been researched for nearly half a century13 in areas as diverse as physical education,14 the workplace,15 and health.16 Self-Determination Theory scholars argue that humans are innately disposed toward psychological growth, and that this can be either thwarted or nurtured by social environments.17 This seeking of new experiences and learning has been termed intrinsic motivation, described as the positive potential inherent in humans.18 According to SDT, social environments that facilitate psychological growth and well-being are characterized by the meeting of a person’s need for autonomy, competence, and relatedness.5,19 This aspect of SDT has been termed Basic Needs Theory.20

Responsive Feeding and Self-Regulation

It is widely accepted that infants regulate their energy intake through complex hunger and satiety cues. Optimal infant feeding practices are based on an attuned and appropriate response to the infant’s signals of hunger and fullness.21 This regulatory capacity continues into childhood, with self-regulation occurring in response to foods at a given meal as well as through adjustments over the course of several sequential meals and snacks.22,23 An emphasis on trusting children’s ability to self-regulate is at the heart of Satter’s24 pioneering clinical work and widely embraced model of childhood feeding, known as the Division of Responsibility:

The division of responsibility outlines in detail the responsive feeding relationship in which parents...
are responsible for the developmentally appropriate structure and routine of feeding (the what, when, and where of eating) and the child is responsible for how much and whether or not to eat what the parent provides.\textsuperscript{25}

The conceptual underpinnings of responsive feeding (RF) are located in the theoretical framework of responsive parenting,\textsuperscript{26} aligned with overlapping fields including attachment and socialization.\textsuperscript{27} The term first appeared in worldwide research in the early 2000s.\textsuperscript{28} Described in several papers in 2011,\textsuperscript{26,29,30} RF recognizes the importance of supporting innate skills of self-regulation through the parental establishment of an appropriate context for eating. It is considered best practice feeding by the American Academy of Pediatrics\textsuperscript{31} and the World Health Organization.\textsuperscript{29} According to Black and Aboud,\textsuperscript{26} RF entails parental acknowledgment of, and respect for, children’s signals of hunger or satiety, followed by a response appropriate to their developmental stage. This is distinct from nonresponsive feeding, in which parents remain underinvolved or adopt controlling feeding practices such as restriction or pressure to eat. Nonresponsive practices can interrupt self-regulation and contribute to avoidant eating,\textsuperscript{32} weight dysregulation,\textsuperscript{33} and eating disorders.\textsuperscript{34,35} Conversely, a focus on the 3 fundamental needs of autonomy, relatedness, and competence supports RF and inborn skills of self-regulation, which is associated with more stable body mass index across the life span.\textsuperscript{36} The basic needs can therefore guide parents to embrace positive feeding practices, potentially preventing problematic weight dysregulation.\textsuperscript{37}

**DISCUSSION**

Each of the 3 basic needs will be defined and explored in relation to the child feeding and child development literature.

**Autonomy**

Autonomy refers to acting in a way that is volitional, congruent, and self-endorsed.\textsuperscript{38} Children may have varying degrees of need for autonomy, reacting differently to parental pressure to eat. Self-regulation of energy intake can be seen as the embodiment of autonomy in the feeding context. When eating is directed by parents in relation to what and how much should be consumed, autonomy is compromised, and self-regulation is hampered.

The literature on controlling feeding practices focuses primarily on restriction (eg, obesity literature) and pressure to eat (eg, avoidant eating literature).\textsuperscript{30} Controlling approaches to feeding are often adopted because of parental anxiety or socially perpetuated but erroneous beliefs such as pressuring a child to eat beyond fullness because of a lack of understanding of fluctuating caloric requirements\textsuperscript{40} or a misperception of underweight or risk of overweight.\textsuperscript{32} Children may also be coerced to eat available food in the face of food insecurity,\textsuperscript{31} or experience restriction because of parental fear of overweight.\textsuperscript{32} It has been argued that pressure to eat makes avoidant eating worse,\textsuperscript{39} invites conflict,\textsuperscript{43} and reduces eating enjoyment.\textsuperscript{44} Creating conditions that have a negative impact on eating. Equally, overt restriction leads to increased eating in the absence of hunger cues.\textsuperscript{33}

Self-Determination Theory underscores the critical goal of maintaining autonomy regarding eating whenever possible. When mealtimes are characterized by conflict and power struggles, parents may be pushing an agenda with which the child either cannot or will not comply, owing, for example, to sensorimotor or anatomical challenges\textsuperscript{45} or simply because the child has eaten to the point of satiety or dislikes the offered food.\textsuperscript{44} A societal shift toward an understanding that autonomy is an inherent aspect of a positive relationship with food, and should therefore be nurtured, could have far-reaching implications for health outcomes and the facilitation of relaxed and enjoyable mealtimes.

**Competence**

Competence refers to a felt sense of efficacy,\textsuperscript{29} which is undermined by a lack of control over outcomes or a task being too difficult or too easy.\textsuperscript{38} It has long been known that types of foods offered and methods of feeding should align with children’s level of maturation and developmental stage.\textsuperscript{46} If foods and feeding methods are beyond a child’s capabilities, the child may begin to feel incompetent and frustrated. To optimize skill acquisition, children need to remain in their zone of proximal development (ZPD),\textsuperscript{47} where they feel competent and are appropriately challenged, and where learning opportunities match their developmental stratum. The adult’s role is to facilitate the child’s progression from the current to the potential skill level.\textsuperscript{48} In the context of feeding, if a child is expected to eat foods that are either excessively or insufficiently challenging, this will move the child out of the ZPD, and learning may be hampered. An emphasis on the child’s sense of competence may therefore help parents and practitioners structure feeding goals that are neither too difficult nor insufficiently challenging.

**Relatedness**

Relatedness has been defined as a feeling of belonging and connection with others; it involves a sense of self-worth, mutual caring, and significance in human relationships.\textsuperscript{49} Attachment theorists suggest that infants’ explorations are healthier when they experience a secure attachment to a parent; conversely, if the adult ignores the child’s attempts to interact, the child displays little intrinsic motivation.\textsuperscript{18}

Eating is inherently communal, and much has been written on the value of the family meal for a child’s developing relationship with food, as well as for overall well-being.\textsuperscript{50} Family meals provide a rich opportunity for parental modeling, including exposure to a wide variety of foods, known to influence children’s eating behaviors significantly.\textsuperscript{51} Equally, parental mealtime connection and engagement are linked to increased food enjoyment in children\textsuperscript{52} and may reduce the risk for eating disorders.\textsuperscript{53} The link between eating and belonging stretches beyond the nuclear family to the child’s extended social environment such as day care, where both peers’ and adults’ eating behaviors affect children’s eating.\textsuperscript{54}
There is increasing awareness that the feeding relationship is critical to positive eating behaviors. Scholars in feeding pathology suggested a link between dysfunctional interactions between mother and child, and childhood feeding problems\(^5\); early work on childhood feeding disorders drew on the attachment literature.\(^6\)

It was proposed that avoidant eating could be conceptualized as a primarily relational issue,\(^7\) or, at a minimum, it is embedded within the inescapable bidirectional relationship between child eating behaviors and parental feeding practices.\(^8\) An emphasis on the parent–child relationship fits with contemporary thinking about the vital role of attunement and responsibility in the parenting literature\(^9\) and refutes interpretations that locate feeding challenges exclusively in the child or define them as noncompliant.

**IMPLICATIONS FOR RESEARCH AND PRACTICE**

Clinical and parental consideration of the extent to which each of the 3 basic needs are being met is essential to children thriving and growing into their best selves regarding food. In this section, we explore each need in turn.

**Autonomy**

The central role of autonomy in feeding has long been stressed by key specialists in the field. According to Satter,\(^10\) for children “to become competent with eating,” they “require both structured opportunities to learn and personal autonomy within that structure.” Similarly, in Chatoor’s\(^11\) view, “autonomy vs dependency has to be negotiated daily during parent–infant feeding interactions.” This tension continues as parents support independence in stage-appropriate ways through to adulthood. An example would be the popular no thank you bite, in which children are required to taste each food offered. Clinical experience suggests that some children happily, or at least cooperatively, take the bite. Others protest, eventually taking the bite. Still another subset of children approaches the task with gagging or tantrums. These children may be experiencing extreme discomfort because their autonomy has been compromised, perhaps coupled with (or exacerbated by) existing underlying challenges. An awareness that children have differing levels of need for autonomy will help professionals champion RF by sharing the message that attunement is important and I size does not fit all.

Autonomy must be upheld in developmentally appropriate ways. One may ask a 6-year-old typical eater if he or she would prefer peas or carrots with dinner. Parents could try asking a child to have a small taste of a novel food on a cracker or preferred food, assessing the child’s resistance, accepting No for an answer and discontinuing the practice if it results in conflict or upset. Children who have experienced coercive feeding or therapy may need to be reassured that their autonomy will be respected with phrases such as You do not have to eat or taste anything you do not want to. The role of compromised autonomy would be an interesting area for future research in relation to avoidant eating behaviors and their treatment.

**Relatedness**

Offering parents support and advice that strengthen relationships and decrease conflict is likely to improve both eating and well-being. Helping parents value the feeding relationship over the short-term goal of getting in a few bites of vegetables can support the development of a positive relationship with food. A focus on relatedness can help clinicians share the message that harmony, love, and connection are more important than vegetables and are likely to help with the long-term goal of raising a child who enjoys eating them. This bidirectional trust holds space for even the most cautious child to try new foods at his or her own pace, leading to increased variety in the long term.

**Competence**

Cognizance of the child’s competence when tackling feeding challenges can help parents and clinicians appropriately gauge what level of difficulty and stimulation to offer through foods and food-related activities. Adult awareness of the ZPD helps children gain skills and reinforces inborn abilities of self-regulation with appropriately challenging next steps. For example, for a 4-year-old, this may entail cutting watermelon chunks with a butter knife, whereas a teen learns to master a chef’s knife. Children with oral-motor difficulties may chew slivers of peeled apples that they spit out before they swallow, moving on to eat apple slices with the peel before taking a bite from a whole apple. An anxious eater may peel and slice a banana, becoming more familiar with the smell, sight, and touch, before tasting a banana muffin.

Although coercive feeding is problematic, an absence of opportunities to progress is also detrimental to optimal development. For example, giving a 1-year-old only purees may hamper the acquisition of sensorimotor skills owing to understimulation.

**The 3 Needs in Concert**

When promoting activities known to foster greater confidence with food, clinicians and educators can highlight how the basic needs come into play. For example, gardening projects, helping with cooking, and allowing children to serve themselves from family foods at mealtimes all involve autonomy, competence, and relatedness. To take advantage of the internal drive for autonomy (I do it!), young children may spread butter with a butter knife or dip foods into sauces, cut with a blunt knife, or peel corn. Learning these skills fosters a sense of competence. Doing so in the company of an engaged adult provides a sense of relatedness. Appropriate autonomy and trusting relationships provide a safe base for exploration and gains in competence and confidence.

**Feeding Therapy and SDT**

There is currently a wide array of approaches used in the treatment of feeding and eating disturbances in children (such as avoidant restrictive food intake disorder), with some being more responsive than others. A consideration of the basic needs while weighing the risks and benefits of certain therapies would be an important area of study. Escape
extinction is an example of a commonly used technique in the applied behavioral analysis approach that is inconsistent with RF principles. Food avoidance expressed through turning away the head, pushing the feeder’s hand away, or shutting the mouth is viewed as inappropriate behavior to be extinguished. Gagging or vomiting in response to presented foods may be interpreted as an attempt to avoid eating or to get attention. During escape extinction, expelled foods (spit out or possibly swallowed and brought back up) are commonly represented (fed back to the child). Refusal to open the mouth may be addressed by inserting a rubber-coated spoon between the child’s teeth and twisting to open the mouth, whereas a chin prompt (upward pressure on the lower jaw and lip) may keep the child from spitting food out in the clinical setting. Above all, the goal of escape extinction is to prohibit escape of the unpleasant task: eating.

These commonly used behavioral feeding therapy tactics are potentially problematic. According to Bachmeyer, treatment fidelity with escape extinction “may be compromised as a result of the child’s size or strength.” In other words, as the size and strength differential between adult and child diminishes, the method is less successful. Parents may struggle to comply, as I mother revealed, “trying to force [the child] to eat was too stressful” in the face of the child’s “whining, crying, arching her back, and vomiting.” Escape extinction is inconsistent with SDT because of the potential sacrifice of autonomy, relatedness, and the child’s sense of competence in the pursuit of short-term goals.

In contrast, feeding therapies consistent with a responsive approach exist, although further research is needed. An example is the role reversal treatment method for children with early-onset feeding disorders, in which parents are successfully coached to replace pathological feeding practices with RF. This facilitates child autonomy and supports the drive to eat, thus establishing optimum cycles of hunger and satiety. Responsive therapies view avoidance behaviors as reactions to early or ongoing negative associations with eating or digesting. Efforts must be made to understand and address why a child is reluctant or anxious regarding eating, including a consideration of past treatment experiences.

Toward a Definition of RF

Although RF is a term used increasingly beyond infancy among clinicians and academics, it has not been consistently defined. It is suggested that an emphasis on autonomy, competence, and relatedness builds on Black and Aboud’s description of RF. Critical to RF is the adult’s attunement to the child and subsequent assessment of cues, including expressions of hunger, fullness, pleasure, comfort, or distress. This interplay necessarily prioritizes children’s autonomy and builds their sense of themselves as capable eaters. All of this happens in the context of the adult-child relationship. Highlighting the 3 basic needs to champion RF flexibly informs interactions between parents and children around mealtimes and food, from infancy throughout the life span.

Summary

With SDT as a guiding framework, health care providers and researchers can ground their work in the driving human need for autonomy, competence, and relatedness when evaluating potential nutrition interventions and RF support. Responsive feeding can be seen as a means of maintaining innate intrinsic motivation to eat by supporting a child’s natural ability to self-regulate. Further research exploring feeding in relation to the 3 needs would enhance understanding of how SDT can be used to improve outcomes for children.

REFERENCES


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