

# Family Influences on Anorexic Refusal Behavior in Infants

-- Case Study based on an Anorexic Baby

Lei Huang \*

Education college, JiMei University, Xiamen, 361021, China

\* Corresponding author Email: leihuanggua@outlook.com

---

**Abstract:** In this study, an 18-month-old with apparent anorexic refusal behavior was used as a subject, and observations were recorded while the subject was eating to speculate on the reasons for the emergence of refusal behavior in the baby. The results indicated that the baby's anorexic behavior was greatly influenced in part by the feeder's inappropriate feeding concepts and feeding practices. In this regard, this study analyzed the impact of feeder behaviors on the development of eating habits in infant and made feasible recommendations for improvement.

**Keywords:** Infants and Baby; Anorexia; Influencing Factors; Case Study; Family.

---

## 1. Introduction

Health problems have been one of the most concerned issues since the development of mankind, especially in the infant and baby population. Among the health problems of infants and baby, anorexia is one of the more common ones, and at the same time, it is also a problem that worries the caregivers enough. From the perspective of physical development, infants are at a critical stage of growth and development, and inappropriate eating habits will have far-reaching impact on their health in adulthood. Severe anorexia may even lead to nutritional deficiencies in infant, which may result in irreversible growth and developmental disorders in infant. Therefore, anorexia nervosa in infant requires extensive attention and in-depth research.

Currently, there has been fruitful research in the field of infant and child anorexia. However, on the whole, most studies have chosen to treat infant anorexia as a medical clinical physiologic condition, exploring its causes and solution strategies from a medical perspective. Undoubtedly, it is possible that part of the anorexia condition in infants and infant is a problem stemming from a physiologic condition. However, in addition to the purely physiological causes of anorexia nervosa in infants, there should be psychological and environmental influences as well. In addition, most of the studies on anorexia in infants and baby are based on anorexic baby with existing significant health problems. For infant with anorexia refusal behaviors who do not have obvious health problems, they also deserve early intervention to prevent anorexia-induced disorders.

Therefore, based on the perspectives of feeder-baby interactions and baby psychology, this study selected a baby with no apparent health problems for the time being, but with apparent anorexia behaviors during the feeding process for observation by means of a case study to explore the specific anorexia manifestations and changes of this baby, as well as the specific feeding practices of the baby's feeders, and to speculate on the influence of the family's external environment on the anorexia of the baby.

## 2. Previous Studies and Discussion

### 2.1. Definition of Concepts

According to the research related to Chinese medicine, pediatric anorexia refers to the decrease of appetite or loss of appetite of toddlers for a longer period of time, and long-term anorexia is harmful to toddlers in terms of malnutrition, anemia, rickets and so on [1]. This study will be based on this definition. Based on this definition, the present study will select a research subject and conduct a case study on this subject.

Of course, there are relevant researchers other than China who have defined the anorexia aspect of toddlers. There are two main types. First, infantile anorexia nervosa (IA). In the book *Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood*, it is mentioned that infantile anorexia nervosa has the following three general characteristics: 1. baby refuse to eat a sufficient amount of food for at least one month and show growth deficits. 2. and exhibits growth deficits. 3. The child lacks the ability to express hunger and lack of interest in food. 4. The child refuses to eat, but not due to a traumatic event or underlying medical condition. Second, Avoidant/Restrictive Food Intake Disorder (ARFID). The *Diagnostic and Statistical Manual of Mental Disorders (5th edition)* indicates that toddlers with ARFID exhibit difficulties with feeding and eating, and that inadequate food intake may be associated with insufficient intake of needed nutrients, even in the absence of significant weight change. Individuals with ARFID exhibit socially and psychologically impairment problems. Beyond this, their symptoms cannot be explained by medically relevant problems [2].

Based on the above three definitions, it can be seen that anorexia nervosa in infants and baby is a psychosomatic disorder, and researchers do not simply define it with only medical knowledge, and therefore should not treat it with only medical methods. In a study of 15 cases of anorexic baby by three Chinese scholars, it was found that anorexia in baby is a psychosomatic disease and that anorexics tend to have some degree of psychological problems, behind which is closely

related to family influence. In the process of treatment, physiological treatment is often emphasized, and there is a lack of attention to the psychological dimension[2]. In addition to this, anorexia nervosa patients who have not yet demonstrated obvious symptoms are often treated with physiological treatment. In addition, it is more appropriate to pay attention to anorexia nervosa from the psychological level in toddlers who have not yet shown obvious health problems. When anorexia is present in infants and baby, if we want to take actions other than physiological treatment, daily family feeding intervention is undoubtedly the most direct way to pay attention to the psychological aspects of infants and baby.

## **2.2. Individual Factors of Anorexia in Infants and Toddlers**

In the home environment, toddlers who exhibit anorexic behavior may be influenced by individual psychological factors.

First, toddler's eating behaviors are influenced by their temperament and personality. In a study by Woon, L. G. and S. K. Min, toddlers were categorized into four personality types based on the Temperament and Temperament Scale (TTS): novelty-seeking, harm-avoidant, reward-dependent, and persistent. Novelty-seeking baby were found to be overactive and have irregular eating behavior, reward-dependent baby were found to be picky and overactive, harm-avoidant baby were found to have a tendency to be picky, and persistent baby were found to be less likely to have these conditions[4]. The reward-dependent baby is picky and hyperactive, the harm-avoidant baby is biased toward the picky condition, and the persistent baby is less likely to experience these conditions. Thus, novelty-seeking and reward-dependent baby may be prone to anorexic behaviors.

Secondly, for toddlers themselves, studies have pointed out that the psychological development of infants and baby has entered the period of individualization at the age of six months, and they become more self-reliant after the age of one, and their sense of autonomy is prone to conflict with parents' concepts of child-rearing. If parents and baby's concepts are not properly adjusted, anorexic behaviors are likely to occur[5]. The child's behavior may be anorexic.

## **2.3. Influence of Feeders on the Diets of Infants and Toddlers**

Relevant researchers believe that anorexic behavior in toddlers is closely related to parents, and that the fundamental prevention and treatment of anorexia should be aimed at parents[5]. In the articles of Mao Jingxia and Han Qiuju, the influence of parents on anorexia nervosa in toddlers is mentioned in more detail: the eating psychology of parents can have a negative influence on anorexia nervosa in toddlers. toddler's eating habits are related to their own growing environment, and as toddlers are in the stage of imperfect physical and mental development, they are easily influenced by the surrounding environment, and their parents' dietary preferences and requirements will exert pressure on toddlers[6]. Parents' dietary preferences and demands can put pressure on baby.

The influence of parental eating habits on toddler's eating habits was similarly mentioned in the studies of Woon, L. G. and S. K. Min. One is the inheritance of dietary preferences and habits, and the other is the subliminal influence in daily life[4].

Taken together, it is clear that the feeders' own dietary

perceptions and requirements can have an impact on toddlers. Therefore, addressing the anorexia condition in toddlers needs to be analyzed at the level of the feeder's behavior.

## **3. Research Methodology**

### **3.1. Research Object Selection**

The criteria for the selection of the subjects of this study were: toddler aged 0-3 years, with a longer period of loss of appetite or loss of appetite, and with significant refusal behavior during feeding. The subject was 18 months old at the beginning of the study and was not yet able to express thoughts verbally. According to the description of the baby's feeder, the baby was started on complementary feeding (with no flavoring added to the complementary food) at the age of 5 months, and after the age of 1 week, feeder started to convert the complementary food to the same food as the feeder. Regardless of the addition of flavorings, the feeders chose to switch from meal to meal in terms of food preparation, e.g., rice at one meal, pasta at the next, etc. Between the initiation of complementary feeding and the time of the study, the baby continued to show a pattern of under-eating at regular meals and significant refusal to eat behavior.

### **3.2. Data Collection Methods**

In this study, video collection was done by the feeder who recorded the entire feeding process of the baby's main meal at the time of the main meal. In total, five recordings were made with an interval of 10 days. After the video data collection, the video information was organized.

## **4. Findings and Discussion**

### **4.1. Findings**

During the course of the study, the baby were not completely unable to eat, but showed frequent refusal behaviors during the eating process. With constant interventions in feeder behavior, the baby were able to manage to eat food, but not successfully. Therefore, this study focused on recording the baby's performance in eating, related to anorexic behavior.

The following is a transcript of the specific study.

#### **4.1.1. Documentation of Anorexic Behavior and Feeder Behavior**

See Table 1.

#### **4.1.2. Other Influencing Factors**

See Table 2.

#### **4.1.3. Other (Some Interviews with Feeders)**

First, mothers and grandmothers of feeders say that there is no set time for baby to eat. The timing of the main meal depended on how early or late the baby ate the previous meal, and the first meal of the day: breakfast depended on when the baby woke up and how willing he was to eat. As shown in the graph above, if the time between meals is short, under 4 hours, the baby's feeding time increases significantly, and the type and degree of refusal behavior may also increase.

Secondly, mothers reported that the feeders of their baby were not fixed and often shifted between babysitter and other family members. In the time prior to the start of the study, babysitter was more often in the role of feeder.

**Table 1. Documentation of Anorexic Behavior and Feeder Behavior**

recording time	Anorexic Behavior in toddler	Feeder behavior	feeder
at the dining table	<p>Deflecting the head to reject the feeder's spoon with food in it.</p> <p>Holding food in the mouth for long periods of time without chewing or swallowing.</p> <p>Expresses displeasure by crying when food is shoved in the mouth by the feeder.</p> <p>Inability to concentrate on eating for long periods of time, needing to use toys to get attention or fiddle with utensils.</p> <p>Unable to tolerate sitting in position for long periods of time, need to walk around and change locations.</p>	<p>When confronted with a baby's refusal of food, immobilize the baby's head and force-feed the food. Pass the food to the baby's mouth and try again and again.</p> <p>Verbally urge your baby to swallow quickly.</p> <p>Provide verbal encouragement to baby as he eats food.</p> <p>Use toys to get the baby's attention and feed the food when the baby's attention is captured.</p> <p>Turn on the TV to get the baby's attention.</p> <p>Pick up the baby and walk.</p>	Babysitter
at the dining table	<p>Deflecting the head to reject the feeder's spoon with food in it and waving his arms to knock the food off.</p> <p>Fiddle with the dishes to divert attention.</p> <p>When given bowls, utensils and food placed in him, baby bring food to his mouth.</p>	<p>Pass the food to the baby's mouth and try several times until the baby accepts it.</p> <p>Place the bowl and utensils in front of the baby for him to fiddle with, and feed baby with a separate spoon.</p> <p>Assist baby to eat on his own and guide him in the way they hold the spoon.</p> <p>Verbally praise baby for bringing food into his mouths on his own.</p>	mother
at the dining table	<p>Refuses food handed to him by the feeder, cries, and keeps his mouth shut.</p> <p>Bury your head in the crook of your arm to avoid food.</p> <p>Ask the feeder for bowls and utensils.</p> <p>Grab food with your own hands and eat it.</p> <p>Unable to sit for long periods of time and asked to leave his seat.</p>	<p>When a baby's mouth is closed tightly, the feeder pinches open the baby's mouth and delivers the food into the baby's mouth.</p> <p>Lift the baby's head from the crook of the arm and feed the food.</p> <p>Verbally request that the baby open his or her mouth.</p> <p>Verbal compliments are given when the baby receives food.</p> <p>Divert baby's attention with objects.</p> <p>Give the bowl and utensils to the baby, but continue for 1-2 minutes and then retrieve him and continue with the feeding method.</p> <p>Get the baby out of seats and feed him as he walks around.</p>	Babysitter
television set	<p>Deflects head and refuses food handed to him by the feeder.</p> <p>When watching TV animation, learn the behavior of the characters in the animation and refuse food.</p> <p>Spit out any food that goes into your mouth.</p> <p>Unconsciously accepts some feedings when attracted to attention by toys and TV sets.</p> <p>The frequency of refusal behavior becomes higher when eating half the usual total amount of food.</p>	<p>Pass the food to the baby's mouth for several attempts.</p> <p>Give baby toys to fiddle with.</p> <p>Use words to guide baby to open his mouths to receive food.</p> <p>Signal the baby to turn off the TV if he/she does not accept the food. (baby listen and then accept the food)</p>	Grandma
television set	<p>Deflects head and refuses food handed to him by the feeder.</p> <p>Strongly refused to accept food while learning about animated characters.</p> <p>You unconsciously accept food when you focus on the TV.</p>	<p>Verbal conversation with baby. (Decrease in refusal behaviors when feeders actively interact verbally with baby)</p> <p>Behavioral verbal encouragement based on the baby's acceptance of food.</p> <p>Engage your baby's attention with some movement.</p>	Grandma

**Table 2. Other Influencing Factors**

recording time	Feeding time	Feeding hours (rounded)	Physical health status of toddler	Length of time between previous meals	Food content
number one	18:30 evening meal	20 minutes.	Herpetic Cheilitis, Diarrhea	Approx. 3.5 hours	Rice, soup, a green vegetable
number two	8:03 breakfast	15 minutes.	mild cough	More than 10 hours	Rice congee, two sides
third	12:44 lunch	14 minutes.	mild cough	4 hours and 44 minutes	Noodles in Bone Soup (baby's Thread Noodles)
fourth	13:11 lunch	30 minutes.	healthy	Approx. 3.5 hours	Rice, soup
fifth	13:56 lunch	9 and a half minutes.	healthy	More than 4 hours	noodles

Thirdly, at the current age of the baby, mothers and other feeders choose to feed the baby entirely by adults. Out of fear

of the baby playing with the food, dirtying the clothes and the table, feeders rarely allow the baby to eat by himself, and handing the baby the bowl and utensils is only a means of distracting the baby so that feeding can be done better.

## **4.2. Discussion of Results (Analysis of Factors Influencing Anorexia in Toddler)**

It can be observed from the above research records that the baby's anorexic refusal behavior was influenced by both self and family factors, with the family's influence accounting for a greater proportion.

First, from the baby's own factors, the baby gradually wanted to take the initiative in the eating process without being adequately supported by the feeder. In the first three records, that is, without being attracted to the television set, the baby asked the feeder for utensils and food, and in two of them he appeared to eat on their own while refusing the food handed to their mouths by the feeder. Demanding autonomous eating is, in fact, a sign of the baby's motivation to eat. Allowing baby to eat on their own can stimulate their interest in eating. On the contrary, if a baby is always passive in accepting food, it is difficult for him/her to have a full interest and a high level of concentration in the meal process[7]. The baby's feeder seldom puts the baby's food on the table. The baby's feeder rarely gave the baby the initiative to eat, even when the baby directly asked to want to initiate eating. The refusal behavior that the baby showed towards feeding could be a craving for autonomy in eating, and prolonged passivity feeding made it difficult for the baby to get a sense of control and satisfaction in the eating process, and boredom constantly appeared.

Second, from the external environmental factors, the main influencing factors are as follows:

### **4.2.1. Irregularity of Feeding Locations and the Feeder Always Interrupts the Young Child's Attention with Something Else. (For Table 1)**

First, the baby's feeding location was irregular. For the first three times during the study, the baby was fed at the dining table. And twice during the feeding process, the baby indicated that she wanted to switch locations and was unable to focus on the same location for long periods of time to eat. And on the last two occasions of the study, the baby's feeding location switched to in front of the television. According to further interviews, the baby's feeding location was not fixed for a long period of time, and the baby even changed between the dining table and the television within three meals a day, and the baby was allowed to walk around while eating during the meal.

Second, in all five records, the feeders chose to engage the baby's attention with toys, television, and movement. The feeders would constantly switch the way they diverted the baby's attention throughout an entire feeding session.

Overall, both of these behaviors are detrimental to the development of toddler's meal focus. At every meal, baby do not get a signal that they need to focus on finishing their meal. He can't learn how to be quiet while eating.

### **4.2.2. Irregularity of Feeding Times and Irregularity of Feeders (For Table 1 and 2)**

According to the feeder in this case, the baby did not have a regular mealtime. As a result, it was difficult for the baby to develop a good eating habit. Meal times were unpredictable and irregular for the baby. It is also difficult for baby to mobilize their attention at each meal time. Physiologically,

the irregularity of meals also leads to irregular digestion times, which not only makes it difficult for baby to eat at their own will, but also has an impact on their physical health.

Second, over the five studies, the feeders of the toddler experienced a rotation of the roles of babysitter, mother, and grandmother. The three feeders themselves may have differed in their feeding styles and concepts of feeding. The frequent rotation of different feeders made it difficult for the baby to form a fixed and regular eating habit. toddler is more confused about what they should be doing at mealtimes and are more likely to exhibit negative, refusal behaviors when being fed. Different family roles also have different levels of closeness to the child, and the child's refusal behavior may be exacerbated in the face of less intimate roles.

### **4.2.3. Verbal Urging Behavior of Feeders (For Table 1)**

The baby was not yet able to express himself verbally at the beginning of the study. However, for 18-month-old infants and baby, they were already able to simply feel the emotions in adult language. In both of the babysitter-feeding studies, the baby's refusal behaviors were clearly more frequent than in the other three studies, especially physical refusal, including head-bending and crying. One possible reason for this is the verbal prodding of the babysitter. Indeed, verbal prodding is not very effective in baby' acceptance of food during mealtimes. Instead, baby is able to pick up on the anxious, biased negativity of the adult in the pushy words. To a certain extent, constant urging stimulates negative emotions in baby, leading to more intense refusal behavior.

### **4.2.4. Force-feeding Behavior (For Table 1)**

Among several external influences, force-feeding is the most obvious factor that can lead to anorexia in toddler. Forced feeding tends to stimulate the rebelliousness of toddler, making him refuse to eat even more[7].which makes baby refuse to eat even more. During the two feeding sessions with the babysitter, the baby was forced to open his mouth or his head was lifted up to feed him. The baby not only showed strong physical refusal before feeding, but also began to cry after the food was ingested. The force-feeding behavior most directly stimulates the anorexia of the baby, or leads to the worsening of the anorexia of the baby.

### **4.2.5. Length of Time Between Meals (For Table 2)**

The most fundamental driver of eating is hunger, and a young child's willingness to eat is greatly tied to hunger. Feeding at short intervals between meals can be difficult for baby who are not hungry. In the fourth study, the length of the meal lasted 30 minutes, mostly due to the short time between meals and the baby's lack of willingness to eat.

### **4.2.6. Physical Health Status of Toddler (For Table 2)**

toddler is unwell and more emotionally unstable when they are ill. Feeding is inherently more difficult when they are sick. Forced-feeding behaviors in the midst of illness are likely to exacerbate the anorexia nervosa of toddler.

## **5. Conclusion and Reflections**

### **5.1. Reach a Verdict**

In this study, a baby with apparent anorexia refusal behavior was observed during the meal process between the baby and the feeder, and it was found that the baby's anorexic behavior was influenced by both self-consciousness and the home environment, which was manifested in the following ways:

(1) toddler's autonomy and initiative in eating are limited by

the feeder.

(2) Cultivation of meal concentration: the place of eating is not fixed, and the attention is disturbed by other foods such as TV and toys when eating.

(3) Cultivation of meal regularity: meal times are randomized and there are no long fixed feeders.

(4) Stimulation of compulsive feeding behavior.

(5) There is not enough time for digestion: the time between meals is too short.

(6) Physical health of toddlers.

Therefore, if we want to improve this child's anorexia, we should start with the above points and make timely changes in the objective environment:

(1) When baby show initiative in eating, let him try to eat on their own and develop their interest and willingness to eat.

(2) Determine a fixed location for meals and a range of meal times.

(3) Choose a regular feeder for feeding or different feeders to reach a consensus on feeding methods and concepts, so as to cultivate toddlers to form uniform eating habits.

(4) Feeding is done in a gentle, experimental way, respecting the child's wishes and resolutely refraining from forced feeding.

(5) Set aside sufficient time between meals.

## 5.2. Reflection

This study is a case study carried out on only one research subject, which is not sufficient in terms of sample size, and the conclusions drawn still need to be tested continuously on

more cases to have a higher level of confidence. Finally, the theoretical knowledge analysis of this study needs to be more in-depth.

## References

- [1] Liu, J., Yu, J. (2003) Progress of Chinese medicine treatment of pediatric anorexia nervosa. *Shanghai Journal of Traditional Chinese Medicine*, 37(1):57-60.
- [2] American Psychiatric Association, DSM-5 Task Force. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5™ (5th ed.)* American Psychiatric Publishing Inc., Washington.
- [3] Zhu, Z., Li, H., Ma, X. (2002) A personality psychological study of anorexia nervosa in 15 baby. *Chinese Journal of Mental Health*, 16(11):761.
- [4] Woon, L. G. and Min, S. K. (2022) The influence of parental eating behaviors, child-feeding practices, and infants' temperaments upon infants' eating behaviors. *Clinical and Experimental Pediatrics* ,65(9): 466-468.
- [5] Xue, Y., Song, X. (2000) Discussion on the psychotherapy of pediatric anorexia nervosa. *China Maternal and Child Health Care*,15(9):549.
- [6] Mao, J., Han, Q. (2001) Influence of parents' dietary psychology on pediatric anorexia. *Shanxi Clinical Medicine*, 10(7):527-528.
- [7] Sui, J. (2019) A study on the correlation between toddler's eating initiative and learning initiative in small classes. Thesis of Nanjing Normal University.