

AN INVESTIGATION OF A TREATMENT PROGRAM FOR FEEDING DIFFICULTIES

Handan Levent

B.S., O.D.T.Ü., 1979

Submitted in Partial Fulfillment of the Requirements

for the

Degree of Master of Arts

in

Clinical Psychology

Department of Social Sciences, School of Administrative Sciences

Boğaziçi University

1983

Bogazici University Library



39001100316986

14



198712

This thesis, submitted by Handan Levent to the Department of Social Sciences of Boğaziçi University in partial fulfillment of the requirements of the Degree of Master of Arts is approved.

Thesis Advisor

Doç.Dr. Güler Fişek

Güler Fişek

Committee Member

Dr. Gökçe Cansever

G. Cansever

Committee Member

Doç.Dr. Hamit Fişek

Hamit Fişek

Date

Jan 28, 1983

## A C K N O W L E D G E M E N T S

In writing this thesis, I have received help from many persons in various ways.

My indebtedness to Doç. Dr. Güler Fişek is very deep. Without her guidance and help it would have been totally impossible. Her encouraging attitude, understanding and patience have made my work more pleasurable.

I owe special thanks to Dr. Gökçe Cansever whose helpful suggestions and criticisms have not only contributed to this thesis, but have also helped me gain personal insight. I would also like to express my thanks to Doç. Dr. Hamit Fişek for his help and suggestions.

I am particularly grateful to Doç. Dr. Ömer Türel both for letting me use his office for weekly interviews with the mother, and for his understanding and tolerance. I would also like to thank the principal and teachers of Erenköy İlkokulu, and Leyla Navaro, Gül Pekcan Türkman and Semra Piringioğlu for their help in finding subjects.

I am greatly indebted to Nilgün Gülay who typed this thesis within a limited time schedule that was available I must also thank Deniz and Kayıhan Üzhun who have helped me initiate this study and have always supported me with love and understanding. I am also grateful to Sema Kayahan and Dilek Özsoy for their understanding, support and tolerance at home.

And finally, I would like to express my gratitude to my parents  
Thank you for everything!

# TABLE OF CONTENTS

	<u>PAGE</u>
I. ABSTRACT.....	
II. INTRODUCTION.....	1
A. THEORETICAL VIEWS ON THE ETIOLOGY OF EATING PROBLEMS.....	2
1. PSYCHOANALYTIC VIEWS.....	2
2. BEHAVIORISTIC EXPLANATION OF THE ETIOLOGY OF EATING PROBLEMS.....	9
3. CHILD-REARING PRACTICES AND FAMILY DYNAMICS IN TURKEY RELEVANT OF FEEDING PROBLEMS.....	16
B. TREATMENT APPROACHES TO EATING PROBLEMS.....	20
1. PSYCHOANALYSIS.....	20
2. BEHAVIOR MODIFICATION.....	22
C. IMPLICATIONS OF THE LITERATURE AND RATIONALE OF THE STUDY.....	30
III. METHOD.....	35
A. RESEARCH DESIGN	
B. SUBJECTS	
C. PROCEDURE	
IV. RESULTS.....	44
V. DISCUSSION.....	55
VI. REFERENCES.....	66
VII. APPENDIX "A".....	70
VIII. APPENDIX "B".....	73
IX. APPENDIX "C".....	76

## LIST OF TABLES

	<u>PAGE</u>
TABLE 1 - General Information About the Subjects in the Experimental Group.....	36
TABLE 2 - General Information About the Subjects in the Control Group.....	37
TABLE 3 - The Occurrence of Inappropriate Eating Behaviors in Every week of the Treatment Program (Experimental Group).....	52
TABLE 4 - The Occurrence of Inappropriate Eating Behaviors in the Control Group.....	53
TABLE 5 - Degree of The Mother's Cooperation and Motivation (Experimental Group).....	54

## ABSTRACT

The purpose of this study is to test the effectiveness of a treatment program to improve the eating habits of children who display problems such as food-refusal, demanding help and/or entertainment in eating, dawdling, and finickiness. The program mainly involves behavior modification techniques, with supportive measures based on psychoanalytic assumptions. The events which served to maintain inappropriate eating behaviors were withdrawn, while new events to strengthen the desired behavior patterns were introduced. These events mainly involved the mother's behavior during and after the meals, the amount and timing of the meals, and a reward system made contingent upon appropriate eating behaviors. There were ten children in the study, between the ages 4 - 2 and 5 - 11. The treatment program was applied to one group of five children and withheld from the control group of five. It was hypothesized that children who participated in a four-week behavior modification program in which the mothers were the change agents would show improvement in eating habits, whereas the children in the control group would show no change. All the cases in the experimental group showed improvement above 90%, whereas no change was observed in the control group. The results of the study indicate that the mother's worries and attitudes play the most important role in initiating feeding difficulties, and changing her attitude and educating her in how to deal with the problem leads to improvement in the child.

## INTRODUCTION

The need for nourishment and self preservation is one of the most important needs and leads to the first and the most important interaction of the child with his mother. While eating occupies such an important place in development, it turns out to be a problem for many children and their mothers. An early study by Foster and Anderson ( 1930, cited in Verville, 1967) revealed that feeding problems are encountered more frequently than any other problem in childhood. Other authors have also stressed the importance and the frequent occurrence of feeding difficulties (Dittmann, 1968; Freud, A., 1946; Spock, 1964; Thom, 1925; Yörükoğlu, 1980).

This situation seems to be true in Turkey, too. One of the most frequent complaints of Turkish mothers is about the feeding of their children. While the mother strives to feed the child, he either dawdles or demands to be entertained, or simply cannot be bothered to eat. Meal hours, therefore, become hours of struggle and misery for both the mother and the child.

This study deals with such feeding difficulties as disinterest in food, demanding help and/or entertainment in eating, and dawdling in young children. The purpose is to test the effectiveness of a treatment program to improve the eating habits of the child by analyzing the feeding situation, and introducing changes that will lead to proper eating habits. These changes involve withdrawal of events that serve to maintain the present inappropriate behaviors, and the presentation of new events to strengthen the desired behavior patterns. These events are mainly the mother's behavior during

and after the meals, the amount and timing of the food presented to the child, and a reward system made contingent upon appropriate eating behaviors.

Before giving a detailed explanation of the program, literature on eating problems has been reviewed. The literature review consists of four sections: The first section is on the psychoanalytic and behavioristic views on the etiology of eating disturbances. Child rearing practices and family dynamics in Turkey, as relevant to feeding difficulties are discussed in the second part. In the third section, the treatment approaches of psychoanalysis and behavior modification are reviewed. Last is the statement of the rationale and hypotheses of the study based on the implications of the literature.

### Theoretical Views on the Etiology of Eating Problems

In this section, two approaches regarding the etiology of eating disturbances, psychoanalytic and behavioristic views will be discussed. The psychoanalytic approach will be presented first, and later the behavioristic explanation will be reviewed.

#### Psychoanalytic Views

In psychoanalytic theory, eating along with other activities like sucking and swallowing is considered to be extremely important during the first years of a child's life. These activities become sources of pleasure and release for libidinal energy in the so-called oral stage of development. Satisfaction and discomfort are associated with the feeding process and the gratification of hunger. Actually, the first experience of instinctual



gratification. and the first form of mother-child interaction is feeding and satisfaction of hunger. Feeding occupies a significant place in psychoanalytic theory. also because it constitutes the prototype of future social interactions, i.e. object relations.

Any upsets in the mother-child interaction are strongly influential in the development of eating problems. Through feeding and oral pleasure, the roots of object relations and the libidinal attachment to the mother are formed; thus food and mother are merged in the child's mind. Therefore, oral attitudes and feeding play the most crucial role in shaping the mother-child relationship which determines the child's attitude to food, and later to objects (A.Freud, 1965).

Anna Freud is one of the psychoanalytic authors who has given considerable emphasis to childhood eating problems. Her fine presentation of the development of eating disturbances will be discussed in this section, incorporating the views and findings of other psychoanalytic authors also. Briefly, she suggests that feeding difficulties emerge in order at the phases of breast - feeding, introduction to new foods, weaning, preoedipal period of ambivalence towards the mother and sexualization in the oedipal period.

According to Anna Freud, when there is no pressure of urgent bodily needs like hunger, the new-born is self-centered and self-sufficient (A. Freud, 1946). The pain created by the sensations of hunger disturb his equilibrium and produce tension. This pain and tension urge the child to take appropriate action, that is announcing his hunger to his environment. Satisfaction of hunger and the pleasure gained through eating

reinforce the baby's urge for self-preservation, because in this way pain is avoided and tension is released. An infant who is successfully fed "loves" the experience of feeding, and this is the "narcissistic love" stage in the development of object love (A. Freud, 1946).

Mother is perceived as an integrated part of the baby, therefore he is very sensitive to the mother's emotions and behaviors, especially in feeding. The mother's ambivalent or anxious response to nursing her child may affect the pleasure the baby gains from feeding, thus decreasing his food intake (A. Freud, 1946).

In some cases, however, because of the feeding schedule employed, the infant's meal may not arrive when he is hungry. He may be allowed to cry and experience fear and anxiety until his scheduled feeding hour. This frustration, according to Frank (Lehman, 1949), is the beginning of many feeding problems among preschool children.

Anna Freud (1946) also discusses the loss of pleasure the hungry child gets from his meal when he has to wait for it under tension and distress. She states that since the child has no organized ego to postpone wish-fulfillment, he requires immediate gratification. When dissatisfactions and frustrations due to the delay in meals are frequent, they cast a shadow on the pleasure aspect of the feeding process. When the mother's anxious attitude toward feeding accompany these interferences with need satisfaction, disruption in the child's attitude toward eating is likely to occur (A. Freud 1946, 1965). Such disturbances in the instinctual process lead to dawdling, finickiness and demands for entertainment in the later years of development (A. Freud, 1946).

Eating problems may be precipitated during the first year by changes in the feeding process. One such change is the introduction of new foods. The child may react to new liquids and soft meals, and later to solid food. Gesell and Ilg (Lehman, 1949) believe that resistance to such foods occurs when they are started too early, and the child's oral apparatus has not yet matured. Escalona (Lehman, 1949) states that the same food might be accepted without resistance when offered by another person who is relaxed and uses a proper technique. This suggests that the mother's own anxiety in feeding the new food puts the child under tension and distress, which makes eating unpleasurable for the child.

Another change in the feeding situation that leads to disturbance and which psychoanalytic authors emphasize is weaning. Freud states that, "For however long a child is fed at his mother's breast, he will always be left with a conviction after he is weaned that his feeding was too short and too little (Lehman, 1949, p. 464). Since the mother and the child are very close to each other during nursing, loss of the mother's breast may be equated with losing the mother entirely in the child's mind (Schmideberg, 1933, in Lehman, 1949). According to Melanie Klein, depressive feelings or the beginning of melancholia may come up as a result of weaning, because the breast and the milk represent love, goodness and security for the child (Lehman, 1949). Hill states that after weaning, hostility and antagonism towards the mother may occur as a result of being deprived of the mother's breast (Lehman, 1949).

Most pediatricians and psychologists suggest that if weaning takes place gradually in slow stages, rather than as an abrupt change to the bottle or spoon, the child feels no shock or tension (A. Freud, 1946; Spock, 1964

Anna Freud believes that such gradual changes do not cause disturbances in the "first period of narcissistic enjoyment of feeding" where the child loves the experience of feeding. When a child moves into latter stages of object relationship where love is transferred to the breast and the milk, and later to the mother, weaning may bring up complications. Difficulties in adjusting to the new phase of mother-child interaction and oral deprivation find their expression in resistance to new food and new modes of nutrition (A.Freud, 1946).

At the conscious level, images of food and mother get separated in the minds of all children after their second year. At the unconscious level, however, these two images remain as an identity. "Much of the child's conflicting behavior towards food does not originate from loss of appetite or a lessened need to eat, etc., but from conflicting emotions towards the mother which are transferred onto the food which is a symbol for her" ( A.Freud, 1946, p. 303).

The direct association of food with mother in the child's mind provides a rational basis for the mother to believe that each food refusal is an expression of the child's rejection of her love and maternal care. She may serve to strengthen the link between food and herself by offering the food as if it were a part of herself. This conviction of the mother leads to an oversensitiveness in handling the feeding process, and constitutes the reason for battles at every meal on the mother's side. The unconscious conflicting emotions of the child towards the mother are strengthened and become a threat to feeding because of the equation "food = love" (Anna Freud, 1946; 1965).

In the minds of mothers who unconsciously reject their children, the association of food with love leads to the devotion of excessive energy and attention to the feeding process; because of guilt feelings and anxiety. The resulting eating disturbance of the child is considered to be an expression of the unconscious death wishes of the mother (Lurie, 1941; Rose, 1943; Spock and Huschka, 1938; in Lehman, 1949).

Other changes that occur in a child's life, and which may lead to eating disturbances are the changes in the organism during physical illness; exhaustion, or weakness. In such instances, decrease in appetite and food intake is commonly observed. For physiological reasons, children become "bad eaters" when they are ill. These may however, become the basis for persistent feeding disturbances of nonorganic origin after the physiological stress is over. When a child is forced to eat beyond his limited appetite; either on medical grounds, or for the mother's own reassurance; the feeding process gets complicated with the entrance of emotional factors upon the scene. The child finds an outlet for his sadomasochistic tendencies towards the mother in the feeding process which become the symbolic expression of the struggle between the mother and the child. Pleasure in winning in this battle overshadows the child's pleasure in eating and satisfying his recovering appetite. Other authors suggest that such a battle may serve to tyrannize the surroundings, or to get parental attention (Alexander, 1941; Fuchs, 1930; in Lehman, 1949).

A mother who has a compulsive urge to feed her child forces him to eat excessively and plays the most active role in the feeding process. Feeling tyrannized the child may resist being forced by dawdling or refusing food. The anxious and determined mother on the other hand, may

try to feed the child herself, or coax him to eat, or entertain him to accelerate the meal. This disturbed eating pattern provides parental attention to the child, which becomes a secondary gain and helps to maintain the pattern (Lehman, 1949). Another aspect of such a situation is that the child who cannot get an active role and initiative in when, what and how much he eats, makes his mother suffer, too, through the power struggle during the feeding process.

As the child develops and reaches the oedipal period, the association of food with mother gradually fades out, and the irrational attitudes toward food and eating are now determined by infantile sexual conflicts and fantasies, such as impregnation through the mouth, and also by reaction formations against cannibalism, i.e. oral sadism (A. Freud, 1965).

The aggressive significance of eating has received considerable attention in psychoanalytic literature since Abraham's study of the oral - sadistic phase of libido development. Abraham has referred to oral sadism where eating symbolizes an aggressive act against food or against the love object the food represents (In Lehman, 1949).

Although oral - sadistic fantasies emerge at an early stage of development when the ego is immature all the available defense mechanisms are used to reject these cannibalistic tendencies out of consciousness (A. Freud, 1946). Where repression or other defense mechanisms cannot be completely successful in coping with cannibalistic wishes, the child's anxiety over oral - sadism continues throughout childhood. This anxiety disrupts the pleasure the child gains in eating, and may often lead to serious eating difficulties. Children like this feel guilty when they enjoy food, and eat slowly, keep the food in their mouths without chewing it, and avoid foods which may be associated with destroying living creatures. In extreme cases where these defenses against oral - sadism

cannot cope with the situation, aggression towards object is directed to the individual's own body, in the form of neurotic self - starvation (A. Freud, 1946).

During the oedipal period, many children may regress to earlier levels of psychosexual development, where they have infantile notions about sex. These infantile notions and fantasies usually involve sexualization of the mouth; for example, impregnation through the mouth.

Anxiety and guilt evoked by these fantasies lead to disturbances in eating such as food refusal and hysterical vomiting (A. Freud, 1946; Lehman, 1949).

Sometimes, a particular food may gain a symbolic significance with sexual content, or it may have symbolic meaning related to bodily excretions. This unconscious process plays the most important role in the development of finickiness and aversions in eating (Lehman, 1949).

The various types of eating problems discussed above can be collected under two broad categories with regard to their etiology. Those feeding difficulties precipitated by upsets in the mother - child interaction and introduction of new modes of nutrition can be grouped in one category, because their etiology is related to an external object and relations with it. Eating disorders which emerge as a reaction formation against oral - sadism or sexual fantasies form another group, because they are caused by internal conflicts.

#### Behavioristic Explanation of the Etiology of Eating Problems

Behaviorism differs from psychoanalytic theory in the sense that it focuses on observable events, i.e. behaviors. According to the behavioristic

approach, most behavior is acquired through learning. Learning refers to the relatively permanent changes in behavior that result from experience with environmental events, that is stimuli (Katz and Zlutnick, 1975).

The main principles involved in the learning of behaviors are operant and classical conditioning. Operant (instrumental) conditioning leads to behavior change according to the consequences the behavior produces. Classical conditioning on the other hand, involves the formation of an association between a response and a stimulus that precedes it.

Classical and operant conditioning both are influential in the learning of inappropriate behaviors as well. Complex behavioral disturbance such as eating disorders would seem to follow the rules of operant conditioning more than classical conditioning; therefore the first part of this section is devoted to a review of operant conditioning and mechanisms associated with it which lead to an increase/decrease in the occurrence of behavior. In the second part, the learning of inappropriate behaviors are discussed. Finally, the third part is on learning of inappropriate eating behaviors.

Operant conditioning and increasing/decreasing the occurrence of behavior. In operant conditioning, the individual actively produces a response which brings about a reaction from the environment. The consequences the behavior produces determine whether that behavior will be intensified or decreased. If what follows the behavior is rewarding for the person, that particular behavior is likely to occur again, increasing in intensity and frequency. Such a stimulus event that produces an increase in the behavior is called a positive reinforcer. Negative reinforcers also cause increase in behavior, but they refer to events whose removal results in behavior increase (Craighead et al.; 1976; Gardner, 1976; Katz and Zlutnick, 1975; Ross, 1972).



An unconditional (primary) reinforcer does not require learning to attain a reinforcing property, because it satisfies the basic needs of the organism. Conditioned (secondary) reinforcers on the other hand, are those events which initially have no reinforcing value, but become reinforcing as a result of pairing with primary or other secondary reinforcers (for example, praise and approval). Conditioned reinforcers paired with several other reinforcers by operant conditioning are referred to as "generalized conditioned reinforcers", e.g. money. When all of these types of reinforcers follow a behavior, that behavior has a high probability of being repeated later in time (Craighead et al., 1976; Katz and Zlutnick, 1975).

While behavior increase is due to reinforcers, decreases in behavior occur through mechanisms of punishment and extinction. Application of an aversive stimulus or the removal of a positive event following a response is referred to as punishment, and its employment results in decrease in the occurrence of that behavior (Craighead et al., 1976; Katz and Zlutnick, 1975). Extinction is the procedure of removing reinforcers for a behavior, which leads to a disconnection between the response and its consequences. As a result, the rate of that behavior decreases (Craighead et al., 1976; Katz and Zlutnick, 1975).

The manner in which consequences follow behavior are called "reinforcement schedules". Some form of reinforcement schedule operates on every behavior, therefore it is worth discussing the various types of schedules possible.

There are mainly two categories of reinforcement schedules: continuous and intermittent. When the response is reinforced each time it occurs, continuous reinforcement is being employed. This schedule is the most effective in providing rapid learning, but maintaining performance is

difficult once reinforcement is ceased (Bandura, 1969; Craighead et al., 1976; Gardner, 1976; Katz and Zlutnick, 1975).

The intermittent reinforcement schedule has two subcategories: ratio schedules and interval schedules. The fixed-ratio schedule requires the completion of a specific amount of work for each reinforcement. Since the person's own behavior determines reinforcement, this schedule produces high behavioral output and stable responsiveness (Bandura, 1969; Gardner, 1975).

In the variable-ratio schedule, the number of responses per reinforcement is varied, and the reinforcements are presented unpredictably. Such irregular reinforcement also generates effective behavior change (Bandura, 1969).

Fixed - interval and variable - interval schedules require reinforcement only after a fixed or varied period of time has elapsed (Bandura, 1969).

Among these five variations in reinforcement schedules, Bandura (1969) reports that the variable-ratio schedule is the most successful in sustaining behavior. Gardner (1976) also states that intermittent or partial reinforcement results in more durable behavior.

The review of the learning of behavior patterns up to this point can be summarized as follows: Most behaviors are learned through mainly operant conditioning. Reinforcers operating under some specific reinforcement schedule increase the rate of behaviors, while performance of other behaviors is reduced by punishment and extinction processes.

The Learning of Inappropriate Behaviors. Keeping in mind the

procedures involved in the development of behavior patterns discussed above, let us now turn to the discussion of the development of inappropriate behaviors.

Problematic behaviors are divided into two categories by Gardner (1976): Behavioral deficits and behavioral excesses. These refer to the frequency and strength of a response in a specific situation.

When a discrepancy exists between what the individual does and what is expected of him by the situation a behavioral deficit is said to exist (Gardner, 1976). Kanfer and Saslow (1965) state that a behavioral deficit exists when a response does not occur with sufficient frequency and intensity in appropriate form, or in socially expected situations. (cited in Gelfand and Hartmann, 1975).

According to Gardner (1976) the basis for behavioral deficits can be one or a combination of several factors:

1. The desired behavior may be totally absent from the individual's repertoire; that is he may have never exhibited that behavior before. If the person has never been exposed to situations which provide an opportunity for the development of that behavior, it will not be learned.
2. Sometimes the individual may have engaged in the behavior in the past, but does not exhibit that behavior on a consistent basis. In other words, the behavior is in the person's repertoire, but he does not perform it. In such cases, the consequences which decrease the occurrence of the behavior gain importance.
3. In other cases, the desired behavior may occur, but only under

restricted conditions. Here the desired behavior is paired with other reinforcing stimuli. In classical conditioning terms, these become conditional stimuli which elicit the target behavior.

Besides behavioral deficits, behaviors of excessive nature are also considered to be problematic. A behavior is considered to be excessive if it occurs frequently in too many inappropriate situations. Such behavior inhibits the learning of new and appropriate behaviors (Bandura, 1969; Gardner, 1976).

Behavioral deficits in a given situation usually lead to excessive behavior patterns in that situation (Gardner, 1976). In other words, if the person does not have, or cannot make use of the appropriate behavior the situation demands from him, he may behave excessively in a manner he already has in his repertoire, because he has no appropriate alternative behaviors available (Gardner, 1976).

Behavioral deficits and excesses are considered to be important because they restrict opportunities for developing new efficient behavior patterns, and also because they usually produce hardships and aversiveness for others (Bandura, 1969). Since they cause a burden on others, these behaviors are usually attended to, and this also helps in maintaining them. When a child behaves as he is expected to in a certain situation, usually he is not given much attention. In other words, his behavior produces no consequences in the environment. On the other hand, if he elicits an inappropriate or undesirable behavior, immediate attention from the environment follows it. "This attention, even when in a scolding, threatening, or reprimanding manner, may well serve to strengthen the very behavior which such consequences are intended to control or eliminate"

(Gardner, 1976, p.46). In such a setting, undesired behavior is more likely to reoccur than the desired behavior, because it produces more intense and immediate social attention, despite the parents' intentions (Gardner, 1976),

Development of Eating Problems. In the feeding situation, problem behaviors of both deficient and excessive nature can be observed. While deficient behavior is lack of self-feeding, slow eating, not sitting at the table, etc., excessive behaviors would be dawdling, demanding help and entertainment, or restlessness.

According to Gardner's (1976) explanation of deficient behaviors, the following factors may be causing deficient eating behaviors:

1. The child may not be able to feed himself, because he has never learned it. If the mother has always fed the child herself and has never exposed him to a situation where proper learning could take place, the child would fail to exhibit proper eating behavior.

2. If proper eating has not been followed by a reinforcing consequence, the child would not repeat it. When deficient behavior, not being able to feed himself properly, is reinforced by social attention from the mother, that behavior is more likely to be repeated.

3. In some cases, the child may eat when the mother is present, or when she entertains him, or feeds him herself. Here, the desired behavior of eating is paired with other reinforcing stimuli, such as the presence of the mother. Since the mother's presence is inevitable during the early years of a child's life, her behavior serves as "an important discriminative and reinforcing stimulus" (Ross, 1974, p.164). If the

mother's behavior is in such a way as to interfere excessively with the child in the feeding process, her behavior may serve both as a positive consequence of inadequate behavior, and as an inhibiting factor for learning appropriate eating behaviors.

### Child Rearing Practices and Family Dynamics in Turkey Relevant to Feeding Problems

In recent years, attitudes towards children, and child-rearing practices in Turkey have been subject to many studies. Although these studies were fruitful in pointing out existing attitudes and disciplines towards children, they also served to demonstrate that the rapid change Turkish culture is undergoing has its effects on child-rearing practices and family dynamics, too. Therefore, the views on child-rearing practices and family dynamics discussed below should be evaluated by keeping in mind that these findings are subject to change by the process of rapid modernization in Turkey.

The discipline applied to children in most Turkish families can be summarized as "controlling and protective" (Fişek, 1982). Where control predominates, love is not usually expected to appear as a factor in discipline. Love, however, in Turkish families, is an important part of child-rearing practices, and goes hand in hand with control. Parents are openly affectionate, especially to younger children, and frequently express their love for them. When paired with control, however, love may find another means for expression, through overprotection (Fişek, 1982).

Regarding the positive aspects of having a child, Kağıtçıbaşı (1981) found that Turkish mothers stress aspects of bringing happiness, strengthening marriage ties, providing friendship and love, a source of fun and pleasure, and a change in their lives. Turkish fathers have been

found to stress these factors less. They emphasize the personal growth and responsibility a child brings. This suggests that the mother's life is more closely affected by her children (Kağıtçıbaşı, 1981). This may stem from the role-differentiation in the family, where the mother stays at home, engaging in domestic work and child-care, while the father deals with the external world (Fişek, 1982; Kağıtçıbaşı, 1981).

The traditional Turkish family does not allow much emotional closeness and interaction between spouses, therefore if the mother does not have much ties with the external world, she may further strengthen her ties to her children to seek closeness and satisfaction. The mother may find gratification for her emotional needs in her children (Fişek, 1982).

Levy (1966) Reports that feeding problems are one of the most common manifestations of maternal indulgence and overprotection. This may be true in some Turkish families, too. Control, indulgence, and overprotection may be carried out excessively in the feeding process, because motherhood and the role of being a good housewife are in a sense associated with how well a child is fed. Since the mother is the provider of nurturance, feeding the child with love may turn into feeding him excessively.

Control and protection during infancy is inevitable, but as the child grows up, it is expected that these will gradually be reduced by the mother who will give the child more autonomy, initiative and freedom of choice. The same thing holds true in the feeding process: as a baby, the child needs mother care and control in feeding, but along with the development of motor and cognitive skills, control in the feeding process should be reduced, and the child should increase competency in feeding himself as he grows up (Yörükoğlu, 1980). The mother who gains satisfac-

tion in her interaction with her child and in nurturing him may not readily give up her control and protection, fearing that her ties with her child would loosen. Such an attitude on the part of the mother may not provide an opportunity for the child to take autonomous care of himself, including proper eating habits. Since the mother controls and regulates what, when and how much the child eats, the child may not perform adequate eating behavior even when maternal release from control and overprotection eventually occurs.

In the traditional Turkish family, obedience to authority is greatly valued, and behaviors such as compliance, respect and quietness are rewarded (Öztürk, 1969). Since these families may not provide training for autonomy and initiative, and would pursue a controlling attitude, their children would be expected to become passive, dependent individuals, with a tendency to rely on external sources of control and reinforcement (Cansever, 1965; Geçten, 1973; Kağıtçıbaşı, 1981; Köknel, 1970; Öztürk, 1969).

These restricting and controlling attitudes lead to frustration and anger in the child, but since disobedience and overt expression of hostility towards adults are punished, the child has to repress or suppress these unacceptable feelings (Öztürk and Volkan, 1977). Such repressed or suppressed feelings may find their outlet for expression in the feeding process. While the mother tries to control the eating of the child, the child may resist her efforts, and although he gets punished and suffers through her urges, he manages to put his mother in distress and misery, too. In such a case, as Anna Freud (1946) suggests, the simple feeding situation becomes an arena where sadomasochistic tendencies of the child and the mother reinforce each other to form a vicious circle.



Dependency accompanied by repressed hostility and aggression may lead to refusal to eat unless fed by the mother, having mother coax or beg for the next bite, or finickiness, etc. (Levy, 1966).

Sometimes such behavioral problems or dysfunctions in the child may be the result of emotional problems between the mother and the father, and their projection onto the child (Fişek, 1982). To avoid dealing with these problems, or to avoid accepting them, the parents may focus on the child's dysfunction, further reinforcing it. When the parents focus on issues that involve their child to avoid marital confrontations, symptoms the child produces have a double function: While symptoms are a protest against being focused upon, they also serve as to maintain and perpetuate the dysfunctional pattern (Barragan, 1976).

When this is applied to families where the mother lacks closeness to her husband, eating difficulties of the child may provide an opportunity for avoiding confrontation with her marital conflicts, and on the other hand keeps her close to her child. To avoid more stressful and dangerous conflicts, the mother and the father may find it safer to focus on their child.

A study by Le Compte et al., (1978) on child-rearing practices of mothers from three socioeconomic levels reveals that the findings discussed above are not true for all levels, and are subject to change depending on the families' level of modernization. According to this study low SES mothers apply more control and overprotection, whereas high SES mothers are not in favor of these practices. Mothers of middle SES have been

found to be in an intermediate position with regard to these dimensions. As the Turkish family gets modernized, overprotection and control over children seem to decrease, with the mother and the father getting closer to each other. In the families where protection and control are still pursued, they seem to be changing their nature, and they are conducted in a more friendly and sharing manner with children.

### Treatment Approaches to Eating Disorders

In this section, psychoanalytic and behavioristic approaches to treatment of eating problems of children will be discussed in turn.

#### Psychoanalysis

Child analysis, derived from psychoanalysis of adults was greatly influenced by the works of Anna Freud. She has stressed the differences between child and adult analysis due to the immature psyche of the child and his life situation (A. Freud, 1965).

Since the child is very much dependent on his parents (especially his mother), and since some of the factors which cause disturbances are related to interaction with them, education of the mothers especially, has received attention in the therapeutic process. The general aim of these programs has been to provide mothers with knowledge which they could use as a base in changing the way they handle their children, so that the child can take a step forward in ego-development.

One such study has been reported by Jacobs (1949). In her cases, feeding difficulties constituted the largest number of referrals. The problem was treated through interviews with the mother, in which the

mother was first informed about the nature of the problem, then asked what she felt should be done to alter the situation. It was suggested that the child should be allowed to feed himself with any food, any way and any time he likes. The aim was to remove the mother from the eating situation, so that other instincts of the child (like aggression against the mother) did not interfere with the child's instinct to eat. In the employment of this procedure, discussions about its application at home, and the mother's feedings were frequently discussed with the mother.

As indicated in this study, assigning the child a more active role in feeding seems to be a successful step in treatment.

Clara Davis (1928, in Lehman, 1949) applied the method of "self-selection of food" to newly weaned babies and older institutionalized children. From a variety of foods presented to them, the children were allowed to choose the food they wanted. Without any restrictions they ate whatever they chose, in any order and amount they desired. Over a period of time it was observed that these children by themselves adopted an adequate diet in every respect.

Most authors believe that the self-selection method returns the initiative to children, establishing a positive attitude towards food, and thus making meals more pleasurable (A. Freud, 1946; Lehman, 1949; Spock, 1964). With this method, the child eats because he wants and enjoys it, not because his mother urges him to do so. Self-feeding and self-selection of food gives the active role to the child, relaxing the control over him, which leads the child into adopting proper eating habits.

Anna Freud (1946) suggests that the mother should permit the child to engage in self-feeding and self-selection as early as possible, and

gradually withdraw from the feeding situation, trusting his appetite and regulations of his diet.

Lehman (1949) holds that parental attention in the form of coaxing, spoon-feeding and entertaining form a secondary gain for the child with his inappropriate eating habits and helps to perpetuate the disorder. Therefore, he suggests that such secondary gains should be eliminated to improve eating behavior.

In dealing with the feeding disorders which are caused by unconscious conflicts on the other hand, these techniques may not be sufficient. In such cases, analysis and resolution of the conflict may be needed.

#### Behavior Modification

In this section, major principles and techniques of behavior modification will be first reviewed, followed by a brief look at their application to children, and to eating problems.

Behavior modification involves the clinical application of operant and classical conditioning. Its direct focus is on the behaviors to be altered, and the antecedent and consequent external events associated with it. Though the principles of operant and classical conditioning, undesired behaviors are decreased and the desired ones are strengthened (Craighead et al., 1976; Gardner, 1976).

Before discussing ways to increase and decrease behavior and the techniques associated with them, it is important to mention how information about these behaviors are gathered.

To establish a clear-cut definition of the behavior to be increased

and/or decreased, and to detect the factors maintaining them, "functional analysis of behavior" is employed. Functional analysis gives information about the determinants of the target behavior, its antecedents and consequents (Craighead et al., 1976; Gardner, 1976; Gelfand and Hartmann, 1975; Meichenbaum, 1977). Functional analysis also provides operational definitions of the behaviors to be changed and determines behavioral parameters such as frequency, duration and quality (Cautela and Upper, 1976). Since stimuli causing the target behavior and its consequences vary from one individual to another, functional analysis helps to identify the specific antecedent-response-consequent relation for each individual, providing a description in behavioral terms of what the individual does in a specific situation (Cautela and Upper, 1976).

After target behaviors are chosen, those to be increased and decreased are identified. There are two ways to increase the frequency of occurrence of behavior: presenting a positive reinforcer, or removing an aversive stimulus associated with it (Katz and Zlutnick, 1975).

In behavior modification, positive reinforcement is applied after the occurrence of a desired behavior, and one or several of the reinforcement schedules can be employed (Craighead et al., 1972; Gardner, 1976; Gelfand and Hartmann, 1975; Katz and Zlutnick, 1975). Although continuous reinforcement is the quickest way to strengthen behavior, it is not possible to continue indefinitely providing reinforcement each time an adequate response occurs. After the withdrawal of continuous reinforcement, the individual is likely to increase performance for a brief period of time, and then a rapid decrease accompanied by emotional reactions is observed (Bandura, 1969; Gardner, 1976). It was mentioned earlier that intermittent or partial reinforcement schedules, rather than a continuous schedule result in more durable behavior, and that the variable-ratio schedule is the most successful in sustaining behavior (Bandura, 1969; Gardner, 1976).

To ensure the maintenance of the desired behavior, behavior modifiers suggest gradually increasing the intermittency between reinforcements until reinforcement is no longer needed to maintain the target behavior (Bandura, 1969; Gardner, 1976; Gelfand and Hartmann, 1975). It is important that the final reinforcement schedule approximates the type of reinforcement schedule occurring in the natural environment. A great discrepancy between the reinforcement schedule of the natural setting and the therapeutic program might lead to a collapse in the newly established performance, and emergence of emotional reactions. The gradual reduction of the frequency of reinforcement avoids such complications after the acceptable level of desired behavior has been achieved (Gardner, 1976).

In behavior modification programs, generalized conditional reinforcers in the form of tokens are frequently used to increase the frequency of occurrence of behavior. Appropriate performances are rewarded with tangible generalized reinforcers, such as money, tickets, stars, points or check marks which can later be used to gain rewarding objects or privileges (Bandura, 1969; Craighead et al., 1976; Katz and Zlutnick, 1975). Token reinforcers have no particular value of their own initially, but since they are exchanged for reinforcing events, they eventually become reinforcing through associations with the rewards they were exchanged with.

"These token events serve to bridge the time delay between the behavior to be strengthened and later presentation of other reinforcing events" (Gardner, 1976, p. 73).

In cases where immediate reinforcement cannot be provided, Gardner (1976) suggests a small token or a check mark on a card taped to the child's desk, to be exchanged for a reinforcer later on.

While the child usually exchanges tokens immediately for the reinforcers, gradual extension of the time between the presentation of the token and the reinforcer has been successfully employed by behavior modifiers (Gardner, 1976).

The other way to increase the frequency of occurrence of behavior, removal of an aversive stimulus, is referred to as "negative reinforcement", and is based on the notion that behaviors which terminate an aversive event will tend to be repeated (Katz and Zlutnick, 1975).

Techniques for decreasing undesired behaviors are the converse of the operations used to increase behavior. Namely an aversive stimulus is presented, or a positive reinforcer is removed (Katz and Zlutnick, 1975). Punishment, response cost, extinction and differential reinforcement of other behaviors are some of the specific techniques involved in decreasing behavior (Katz and Zlutnick, 1975).

Punishment is the application of an aversive stimulus following a behavior to produce decrease in that behavior (Gelfand and Hartmann, 1975; Katz and Zlutnick, 1975). Choice of punishments is a delicate issue, because administration of inappropriate or intense punishment may lead to avoidance of, or aggression towards the punishing agent (Azrin and Halz, 1966, in Gelfand and Hartmann, 1975). Bandura (1962, in Katz and Zlutnick, 1975) also stresses the negative outcomes of punishment along with its success in suppressing undesired responses.

The response cost (RC) procedure eliminates most of the negative consequences of direct punishment by requiring the person to give up some reinforcing event. While the individual gains reinforcers for desired behavior, he is deprived of them when exhibits inappropriate behavior (Craighead et al., 1976; Gardner, 1976; Katz and Zlutnick, 1975). If a positive reinforcement procedure for alternative behavior is effectively

combined with the RC technique, the probability of an increase in desired behavior, and a reduction in the undesired one is high (Gambrill, 1977, Gardner, 1976; Katz and Zlutnick, 1975). RC used within a token economy may involve removal of tokens following an inappropriate behavior (Craighead et al., 1976; Katz and Zlutnick, 1975).

Extinction is decreasing behavior by discontinuing reinforcement for that behavior. A temporary increase in behavior is common before a decline is observed. Therefore, extinction can be a slow and frustrating operation; however it is an effective way to eliminate behavior without any use of aversive stimuli (Katz and Zlutnick, 1975).

Differential reinforcement of other behaviors is means of decreasing behavior by positively reinforcing other incompatible behaviors. "If appropriate behavior produces more reinforcement than inappropriate behavior, it will predominate" (Katz and Zlutnick, 1975, p.24). This procedure is effective when used alone or in combination with other procedures (Gambrill, 1977, Katz and Zlutnick, 1975).

#### Application of Behavior Modification to Children:

In using behavior modification techniques, especially response-cost procedure, it is suggested that an explanation of the purposes and procedures of the program and rules of reinforcement and RC should be clearly stated to the child (Gardner, 1976; Gelfand and Hartmann, 1975). This explanation provides the child with a choice and he knows what will happen and for what reason. The information about the program contributes to the development of self-responsibility of the child (Gardner, 1976).

Another issue in the application of behavior modification to children



is the choice of the person to work with the child. There are two alternatives: one is for the therapist to work with the child himself, and the other is to work with parents, teachers or other adults who have control over the environment surrounding the target behavior.

In the case of the therapist working with the child himself, there are several problems which may arise: Will the therapy setting approximate the natural environment the target behavior takes place, and will the child behave outside the behavior modification session (Hilts, 1974).

Some authors suggest that those who have the most intensive contact with the child can serve as agents for change, if they are given proper training. Since they have the most power in the environment of the child, they can successfully be utilized in the treatment of the child's behavior (Bandura, 1969; Hilts, 1974). Bandura (1969) reports successful application of this approach in child therapy, where parents take the active role as change agents.

The parents or other agents of change must be given a detailed explanation of how they must change their usual reaction to the child's behavior to produce behavior change. This would include change in the usual reinforcement they provide unintentionally which helped to sustain the undesired behavior. The parents are advised to ignore, or to provide negative reinforcement for undesired behavior and reward appropriate behavior (Bandura, 1969; Gambrill, 1977). After producing such changes in the parents' behavior, it is crucial to support and reinforce them, because after the withdrawal of reinforcing events following undesired behavior, increase in such behaviors can be observed. During this period, providing

social support helps the parents to behave in the desired manner, instead of giving up. Later when positive behavioral changes do occur in the child, they serve as more powerful rewards for the parents (Bandura, 1969).

To summarize, a well-designed program of behavior modification involves first the identification of social conditions that maintain the undesired behavior and those that suppress the desired one, through a careful behavioral analysis. The next step is the specification of those response patterns to be eliminated and those to be strengthened, and deciding upon the techniques to be employed. Then, the parents, or other change agents are given an explanation of how they must react to certain behaviors of the child, and other changes in the environment and external events, reinforcers and punishments if any, which would produce behavior change. Finally, the parents are supported during their application of the treatment program.

Behavior Modification of Eating Problems. Behavior modification techniques have been widely applied to eating behavior in studies of weight reduction and obesity, and treatment of anorexia nervosa.

Mann (1972) applied a method of "contingency contracting" to adults who have weight control problems. After signing a legal contract, each subject gave items of his own property and those which were valuable to him to the experimenter. Upon specified weight reductions, the subject could earn back some of this property. Weight gains, on the other hand, resulted in permanent loss of his valuables. This procedure of providing reinforcing and punishing consequences yielded fine results in reducing weight.

In treating obesity, Yates (1970) suggests teaching self-control and making the subject an active participant, because eating behavior is attached to many environmental stimuli, all of which are not possible to control. Rathus and Nevid (1977) have developed behavioral weight control methods by making use of self-reward and self-punishment, and stressing the environmental determinants. Jeffrey (1975) demonstrated that self-control and external control treatment conditions were equally effective in reducing weight and improving eating habits.

Operant conditioning techniques have been applied in the treatment of anorexia nervosa, too. One such study by Bachrach et al., (1966), made use of reinforcing eating behavior by social events, while not eating resulted in lack of reinforcement, and later verbal disapproval.

Garfinkel et al. (1973) report a study with five anorexic patients to whom operant conditioning techniques were employed to restore eating behavior and weightgain. Goals and privileges were defined to each patient and they were made to feel responsible for gaining weight. Appropriate reinforcers specifically chosen for each patient's manifest behavior yielded successful results.

Azerrad and Stafford's (1969) study with an anorexic girl suggests that a positive reinforcer in the form of token system contingent on the amount of food intake is an effective method for increasing eating rate.

Ireton and Guthrie (1972) tried to modify vegetable-eating behavior in preschool children by giving stickers for each portion of vegetables they ate. Stickers were used as tokens which could be exchanged for a dessert.

For the treatment of food-refusal and dawdling in children, Verville (1977) suggests that the negative attitudes the child has acquired towards

food must be eliminated. He reports that if the child eats alone and is permitted to leave the table when he decides he is finished, and is presented with foods he likes and in small quantities overstimulation and parental urging can be prevented. He further suggests that the mother should keep a daily record of everything the child eats to decrease her tendency to urge and force the child. This record can be useful in assuring her that her child is receiving sufficient nourishment despite his food-refusal at meal-times. According to Verville (1967), limiting the meal hour to 30 or 40 minutes and removing his food if he is not finished is a useful technique to teach a child to eat his meal himself, within a reasonable amount of time.

#### Implications of the Literature and Rationale of the Study

In the light of the literature discussed above, how problems in the feeding situation arise can be summarized as follows: Since mother is a very significant figure in the child's life, especially at mealtimes in feeding, her behavior and the mother-child interaction plays an important role. As a reaction to a change in the feeding regime or due to physiological reasons, a child may show a decrease in appetite and/or resistance to food. A mother who is anxious to feed her child either because of her guilt feelings for rejecting him, or because she seeks satisfaction in her closeness with him, is apt to urge and force her child to eat. Such urging and forcing leads to the loss of the rewarding value of food for the child and he further resists feeding. This results in increased efforts of the mother, thus ending in a vicious cycle. This struggle over the eating process provides positive consequences both for the child and the mother which helps

to maintain the dysfunctional pattern. The child receives parental attention for his undesired behavior, even if it is in the form of threats, scoldings, and physical punishment. He manages to put his mother in distress even if he has to suffer for it. The mother on the other hand, may find an outlet for the expression of both her positive and negative attitudes towards her child. In the overall family, this dysfunctional pattern may serve to avoid confrontation with other problems. All of these factors help to maintain the inappropriate behavior of the child.

For the treatment of such feeding disorders, elimination of rewarding consequences of the inappropriate behavior which hinder the development of a more adaptive pattern seems to be the crucial step. To do so, a careful analysis of all the conditions surrounding the feeding situation is necessary. Functional analysis is useful in providing all the important data regarding the behaviors of the child and the mother.

A behavior modification program conducted by the mother at home under guidance may be successful since it is carried out in the natural environment where such behaviors occur. Besides, recording the child's and her own behavior may reduce mother's anxiety, and may provide some insight as to her own behavior which helps to strengthen the undesired behavior of the child. Permitting the child to eat what he likes, in the amount he desires gives the control and initiative to the child, increasing his self-reliance and control, and helps him regain the pleasure in eating.

With this rationale in mind, this study proposed to apply a behavior modification program to children's eating problems, using mothers as the change agents. The therapist would meet with the mother weekly to instruct

the mother in the method, to follow up on the suggested procedures, and to work with the mother in overcoming her hesitancies, and interferences from other parts of the family system.

### Hypothesis

In this study it is hypothesized that children with eating problems who undergo a four-week behavior modification program in which the mother is the change agent, will show an increase in appropriate feeding behavior and a decrease in inappropriate feeding behaviors.

## METHOD

### Research Design

This study aimed at investigating the effects of a treatment program for children with feeding difficulties. For this purpose, a replicated single-case experimental design was used. This design is widely applied in behavior modification and research on operant conditioning, because it permits controlled intensive investigation of single cases, and provides information about variations of treatment in each case (Hersen and Earlow, 1976; Kazdin, 1982; Yates, 1970).

The effect of the treatment program was investigated in five cases. To eliminate intervening variables like time, maturation, etc., five other cases who received no treatment were used as a control group.

The random assignment of cases into the treatment and control groups was not possible due to practical reasons. Children whose mothers lived close-by and who had somebody to babysit during the sessions with the therapist and who were willing to commit four weeks to the program were assigned to the treatment group. Children whose mothers could not fulfill these conditions were assigned to the control group. The fact that the control group was not equal to the treatment group in terms of age and sex of the children was considered to cause no effects on the results. Although the mean ages in the two groups were not equal, they were not very discrepant from one another, therefore variations in age were not considered to be important. Distribution of sex into the two groups was unequal, but it was thought that the feeding difficulties were independent from the sex of the child.

## Subjects

In choosing the subjects for this study, one very important criterion was that the child should be with the mother during at least two main meals and one snack hour every day. Therefore, children who were not attending a fulltime nursery or elementary school were selected. The subjects had to be children of at least average intelligence, with no other physical or psychological disturbance which would interfere with the treatment program. The age-range was from 4-0 to 6-6. In all subjects, the dissatisfaction of the mother with the child's food-intake and/or eating habits was required.

Purposive sampling method was used, and some of the subjects were chosen from the answers to letters distributed in an elementary school, and some were referred by friends. All referrals were made on the basis of the information that a new method for improving eating habits of children was being applied.

The number of cases to whom the treatment was applied is five. There were also five other cases who received no treatment and served as the control group. Since these two groups were not matched, several differences existed between them, in terms of mean age and distribution of sex. Five of the total number of ten cases were males, and five were females. There were four males and one female in the treatment group, and one male, four females in the control group. The age range of the subjects was from 4-0 to 5-11. The treatment group ranged in age from 4-2 to 5-11, while the control group from 4-0 to 5-10. (See Tables 1 and 2).

Of the 10 subjects, the mother of only one case did not complain about the food intake, but was dissatisfied with eating behaviors, and this



case was in the treatment group. All of the subjects required the help and coaxing of the mother to finish their meals. Three cases in the treatment and three in the control group demanded entertainment and play, too.

Two of the cases displayed finickiness in the treatment group, while finickiness was reported in only one case in the control group.

As for the beginning of the feeding disturbance, three cases in the treatment, and three in the control group had difficulties since birth. The rest of the subjects have had a period of satisfactory feeding before the onset of the disturbance.

Three cases in the treatment group and four in the control group had another sibling, and in all of these cases, the subject was the younger one. Of these, the siblings of one in the treatment, and two in the control group also had had a feeding problem.

The mothers of all cases have completed at least high school education. There are two mothers who are university graduates in the treatment group. The number of university graduates is three in the control group.

All of the fathers have completed higher education except for one in the treatment group who has left university at his second year.

General Information About the Subjects in the Experimental Group

Case No.	Age	Sex	Feeding difficulty x	Other problems	Mother's education	Father education
1	4-4	M	a,b,c	-	university graduate	university graduate
2	5-3	M	c,d	enuresis	high school graduate	university graduate
3	5-1	F	a,b,d	-	university graduate	university graduate
4	5-11	M	a,c,d	-	high school graduate	university graduate
5	4-2	M	a,d	-	high school graduate	high school graduate

x The letters refer to:

a)lack of appetite,  
refusing food.

b)finickiness

c)demanding enter-  
tainment and/or  
coaxing.

d)demanding help.

General Information About the Subjects

in the Control Group

Case No.	Age	Sex	Feeding difficulty *	Other Problems, if any	Mother's education	Father's education
1	5-9	F.	a,b,c	-	High school education	university education
2	4-11	M.	a,c,d	Articulatory immaturity (cannot pronounce some words correctly)	university education	university education
3	5-7	F.	a,c,d	-	high school education	university education
4	5-10	F.	a,c,d	the mother complains about the extreme shyness of the child enuresis	university education	high school education
5	5-4	F.	a,c,d	-	high school education	university education

\* The letters refer to:

a)lack of appetite,  
refusing food.

b)finickiness

c)demanding  
entertainment and/or  
coaxing.

d)demanding help

## Procedure

### Experimental group

The Initial Interview: The first week. Before starting the treatment an initial interview was conducted with each mother to understand the nature and causes of the feeding disturbance and the dynamics of the family. After the interview, the mothers were given recording sheets to note the child's eating behavior and the events surrounding it for seven days, till the next meeting. These records provided the functional analysis data. Mothers received an explanation about the necessity of detailed information regarding the eating behavior and the situations associated with it.

The initial interview form and a recording sheet can be seen in appendix A and B respectively.

Phase I: The Second week. At the second meeting, the functional analysis data was obtained and examined closely together with the mother. A full explanation of the rationale of the program was given to the mother and her anxieties and doubts were discussed. The mother was instructed to give information about the program to both the child and the other members of the family. If a member of the family was likely to interfere with the program, that was discussed with the mother, and arrangements were made to avoid his/her interference.

#### Application of phase I:

1. Functional analysis data was examined, and the conditions which helped to maintain inappropriate behaviors were detected. These could be the behavior of the mother, mood of the family at the table, timing of the meals, amount of food presented, or the place where the meals are served, etc.

2. After the specification of these factors which lead to inappropriate eating behaviors, the mother was given an explanation about how such factors influence the child's behavior.
3. Factors such as amount and timing of food presented, the place where meals are served, and the general atmosphere of the family which served as aversive stimuli were discussed and changed according to the situation each family presented. No food was to be given to the child between the meals, except for the scheduled snack hours where the child was given only a glass of liquid or a piece of fruit.
4. Regarding the mother's behavior, she was advised to quit her specified behaviors which served to reinforce and maintain the undesired eating habits. These behaviors of the mother could be coaxing, entertaining, scolding or threatening the child, or feeding him herself.
5. After the removal of such behaviors of the mother, she was instructed to give more initiative to the child with regard to what and how much he wanted to eat by asking him. She was advised to cook the child's favorite foods more frequently. During the meals, she was instructed not to interfere with the child by constantly warning him or by trying to feed him herself.
6. If the child ate what he chose from the meal table appropriately within a given amount of time, he was immediately provided with social reinforcers, i.e. love, praise and approval from the mother. When the child did not engage in appropriate eating behaviors in a meal, the mother was advised to remind the child once or twice (just reminding no coaxing or scolding) and if this failed, she was instructed to remove

his dish after the meal hour was over. No active punishment was employed, but the love, praise and approval given after a successful meal were withdrawn, and the child was told that he should try harder for the next meal.

7. The next step was the explanation of the token system to the mother. Each mother was instructed to explain the rules of the token economy to the child and prepare a weekly chart of meals with him. When the child adequately ate his meal he earned a token, which was a sticker he put on his chart in the space corresponding to that particular meal. During phase I, the tokens were transferred immediately to rewards when the child could accumulate five tokens. In other words, five appropriately completed meals yielded one reward. The suitable rewards were discussed with the mother for each child.
8. Next, response-cost was explained to the mother, and she was instructed to explain the rules to the child, too. Failure to perform adequate eating behaviors resulted in withdrawal of social reinforcers, and the child could earn no tokens.
9. In cases where meals were one of the few hours that the child could receive attention from the mother, play hours with the mother were scheduled.
10. The mothers were given another set of weekly recording sheets for functional analysis of phase I, at the termination of this meeting.

Phase II: Third Week

1. After the application of phase I for a week, the mother was interviewed on how the program was applied at home. The reaction of the child and the other family members to the program and the mother's attitude were discussed. If the mother had failed to apply some of the instructions, reasons for it were investigated and tried to be corrected.
2. Recording sheets of phase I were analyzed. Doubts and anxieties of the mother were discussed and she was reinforced for her new attitude in feeding her child.
3. If the child had succeeded in earning at least one reward (five tokens), instructions for phase II were given. If the child failed to exhibit at least five appropriate behaviors, it might have been due to the behaviors, resistance to extinction. Therefore, the feeding situation and the family dynamics were reanalyzed, and new modifications were introduced if necessary, and phase I was repeated.
4. In phase II, a better performance was expected from the child in terms of the number of successfully completed meals. The mother was told to explain the child that this week he would earn a reward for every fifteen tokens. The mother was advised to choose rewards that were more pleasurable for the child, since the child would have to wait longer than he did in the past week to receive a reward. Possible rewards were discussed with the mother.
5. Except for the changes in the token system, the rest of the procedure remained the same.

Phase III: Fourth Week:

1. In the fourth meeting, functional analysis of the second phase, its application at home, any difficulties encountered, and the child's reaction to the change in the token system were discussed.
2. If the child could accumulate at least fifteen tokens and could earn a reward in phase II, he progressed to the third phase. If the child failed to progress in the third week, and could not earn a reward, reasons were investigated, modifications were made accordingly, and phase II was repeated.
3. In the third phase, the token economy involved one reward per twenty one tokens, which required perfect performance at every meal during that week. If the child achieved this, at the end of the week he was rewarded with something very special and pleasurable for him.

Phase IV: Fifth Week:

1. At the fifth meeting with the mother, results of phase III were obtained, and if the child had not succeeded in acquiring 21 tokens, reasons were investigated, and modifications were made before the repetition of phase III.
2. If the child had successfully completed phase IV, the feelings and attitudes of the mother, the child, and other family members about the change in the child's behavior were discussed. Since the child had reached perfect performance, the treatment was terminated, but the mother was advised to continue to reward the child intermittently to strengthen the newly acquired behaviors.



Follow-up:

After the termination of the treatment program, each mother was called again several weeks later, to learn whether there was any relapse or the child continued his proper eating habits. Several weeks after the first follow-up, the mothers were called again, and a second assessment was obtained after termination. During each follow-up the mothers were supported and reinforced.

Control group: With the mothers in the control group, an initial interview was done like the mothers in the experimental group. After the initial interview, they were given weekly functional analysis sheets which they filled out at home. At the end of that week functional analysis sheets (recording sheets) were collected and the number of inappropriate eating behaviors were counted. This constituted the first assessment. Three weeks later these mothers were given another set of functional analysis sheets which they filled out during that week. This was the second assessment.

## RESULTS

The results obtained from the present study will be presented in four sections. In the first section, the occurrence of inappropriate eating behaviors prior to the treatment, and during and at the end of the treatment in the experimental and control groups, and a comparison of these two groups will be given. In the second section, the attitude of the parents' and the children towards the feeding difficulty will be presented. The findings about the developmental history of the feeding difficulties will be cited in section three. Finally, in the fourth section, the factors which had an effect on the operation of the treatment program will be discussed.

### The Occurrence of Inappropriate Eating Behaviors

The occurrence of inappropriate eating behaviors during each week of the treatment program for cases in the experimental group is shown on Table 3. This information was gathered on the basis of functional analysis which included the following: the number of meals and snacks the child refused to eat, displayed finickiness, demanded help and/or entertainment, or during which the mother had to coax were counted every week, and this number was taken as the frequency of inappropriate eating behaviors for each week.

During the week prior to the treatment, the occurrence of inappropriate eating behaviors for all the cases in the experimental group ranged from 14 to 22 (Mean=18). In the second week (phase I), after the treatment was started, this range was reduced to 4 to 9 (Mean=6). A further decrease in the number of inappropriate eating behaviors was observed in phase II (Range: 2-6, mean=4). Finally, during the third phase, the range was

reduced to zero to 2. Four of the cases in the experimental group displayed no inappropriate behaviors. As shown on Table 3, Case 5 had difficulty twice in the final phase. The reason for his failure to behave adequately is discussed in the description of this case (see Appendix C). In the first follow-up, Cases 1,2,3 and 4 were found to be maintaining the pattern found at the termination of the treatment. Case 5 had one inappropriate eating behavior in a two-weeks follow-up. The mother reported that he did not like the food presented to him, and therefore could not finish it. In the second follow-up, Case 5 was reported to improve, and the occurrence of inappropriate eating behaviors was reduced to zero. In cases 1,2 and 3, there was no relapse in the second follow-up (8-11 weeks). Case 4 had problems during two meals in a seven-weeks follow-up, as explained in the discussion of this case (see Appendix C).

The degree of improvement in each case in the experimental group was calculated by computing the difference between the number of inappropriate eating behaviors prior to the treatment and at the end of phase II, i.e. at termination. Each difference was then converted into percentages. It was decided that cases who have shown 90-100% improvement would be considered cured. This criterion for improvement was adapted from a study on the treatment of nocturnal enuresis by Konakçı, 1982. She defined the subjects who got percentages between 90 and 100 as "cured", those between 80 and 90 as "improved", and those below 80 as "failure".

Cases 1,2,3 and 4 showed 100% improvement, whereas Case 5 reached 90,5% improvement by the end of the third phase. Since all of the cases showed improvement above 90%, they were considered to be cured.

Table 4 shows the occurrence of inappropriate eating behaviors in the control group. Four weeks after the first assessment, a second assessment was obtained. The comparison of these two assessments revealed that the cases in the control group did not show a marked difference in the occurrence of bad eating habits. Only case 1 showed some improvement (29,6%), but the other cases either remained the same or showed a slight increase.

A comparison of the final assessment of the occurrence of inappropriate eating behaviors in the experimental versus the control groups showed that in the experimental group, the frequency has been reduced by 90,9 - 100%, whereas the control group showed no decrease (only one case, 29,6%)

#### The Attitudes of the Parents and the Children

To get a better understanding of the results, it is worth-while to take a look at the attitude of the parents toward the feeding difficulty.

All the mothers had an idea about why there were feeding difficulties with their children. All the mothers in the experimental group, and four mothers in the control group admitted that their own worries in feeding their children helped to maintain the pattern. These mothers said that they were not satisfied with the amount and quality of food their children consumed, and that they were afraid the children would lose weight and get sick if they gave up feeding them. Besides their own worries, two mothers in the experimental group, and one in the control group attributed the cause to physical illness. Five of the mothers also thought that their children manipulated them at meal times by displaying inappropriate eating behaviors. One mother in the experimental group thought that her and her husband's finicky attitude towards food also played a role. Another mother in the control group regarded the problem as a non-permanent one, characteristic of the developmental phase the child was in.

Regarding the mothers' reactions to their children's inappropriate eating behaviors, nine of the ten mothers reported that they felt very unhappy and angry, and scolded their children, but still urged them to eat. Two of these mothers (one in the experimental, and one in the control group) said that they sometimes got so angry and frustrated that they even spanked their children. One mother in the control group who regarded the problem as a non-permanent one remained relatively indifferent.

The fathers' reactions to the feeding difficulty were found to be different from that of the mothers. Three fathers in the experimental group, and all in the control group were indifferent to the problem. All of these fathers blamed the mothers for urging the children and thought that there would be no problem if the children were allowed to feed themselves, or stay hungry for several meals when they failed to do so. The mothers reacted to this with fear that the children would get sick. One father in the experimental group got angry at the child, and also at the mother because she could not teach adequate eating habits to their child. Another father was as anxious as the mother, and he also got angry and scolded the child.

Regarding the children's reactions to the feeding difficulty, all the children were reported to feel unhappy during the meals because of the mothers' urges. Among them two children reacted more nervously and stubbornly to their mothers. Five of these children were said to use the feeding difficulty as means for manipulating their mothers also.

In summary, the discussions with the mothers in the experimental group revealed that all of the mothers had correctly attributed the cause partly to their own worries about feeding their children, and partly to

some other factors like physical illness, parents' attitudes toward food, and manipulation by the child. All the mothers expect for one in the control group, got very upset when their children failed to eat adequately. All the fathers in the control group were indifferent to the problem, whereas there were two fathers in the experimental group who reacted to the feeding difficulty. All of the children in both groups felt upset because of their mothers' urges during meals.

### The Developmental History of the Feeding Difficulties

When feeding was examined in the developmental history of the cases, it was observed that four cases in the experimental and three in the control group had difficulties in breast-feeding. These mothers could not adequately nurse their children either because the children resisted to it, or they had physical problems themselves. The period of breast feeding ranged from zero days to 13 months in the experimental group, and from 3 days to 6 months in the control group.

Weaning was abrupt in three of the cases in each group. One mother in the control group had to abruptly wean the baby after two months of breast-feeding, because she had to start working. Another mother in the experimental group weaned her child abruptly when he was thirteen months old, because he was grown up to be breast-fed. She reported that the child cried for days, but then accepted the situation. Two cases in the experimental group weaned themselves abruptly due to physical illness of themselves or the mothers. The two cases in the control group weaned themselves because their mothers did not have sufficient milk.

With the introduction of solid foods, three cases in the experimental, and four in the control group had difficulty in adjusting. They had difficulty in swallowing and dawdled.

One case in the experimental group did not display feeding difficulties until he was two and a half years old when he had a kidney disturbance. Another case in the experimental group was reported to have been relatively well-fed during his first year, but gradually started to resist food after that. In the control group, one case had more difficulty after he was three years old when he was started to be fed with the family at the table.

In summary, all of the cases in both groups were reported to have feeding difficulties in their early years of life. Seven of the cases had disturbances in breast-feeding. Weaning was abrupt in six cases, and gradual weaning took place in four. Two cases were abruptly weaned by the mothers, and four children weaned themselves abruptly either because their mothers did not have sufficient milk or because of physical illness. Seven cases displayed difficulty with the introduction of solid foods. Three cases were relatively well-fed for a period of time, but started to have problems later. One of these cases had a physical illness; another one had a decrease of appetite after his first year; and the last one had difficulties in adjusting to eat at the table.

#### Factors Influencing the Operation of the Program

There were some factors which affected the operation of the program, and therefore had an effect on the results. These constitute the third section of the results. These are namely, the motivation and cooperation of the mother, the motivation of the child, and cooperation of the other members of the family.

The motivation and cooperation of the mother was very important for the operation of the treatment program, mainly because she was the one who carried out the program at home. All the mothers in the experimental group were rated on their motivation and cooperation during each week of the treatment program. After each weekly interview, mothers were given a

score between zero and five, regarding their application of the treatment program at home. A score of five meant that the mother followed the instructions completely, whereas zero points were given when the mother did not follow the instructions at all, or could not apply them correctly. When the mother could partly apply the directions, points were reduced from the total score of five. Motivation and cooperation of each mother was evaluated this way in phases I, II and III, and scores of these three phases were added up and divided into three to find the average cooperation score of each mother. The mothers who got scores higher than 2.50 were considered as cooperative, whereas mothers with scores lower than 2.50 were considered as uncooperative. Evaluation of the mothers' motivation and cooperation during phase I, II and III, and their average motivation scores are shown on Table 5. As can be seen on this table, all of the mothers were cooperative.

The motivation and cooperation of the children in the experimental group were evaluated on the basis of the mothers' reports in the weekly discussions. All the children, except one, were motivated and enthusiastic about the program after the mothers explained it to them. Only Case 4 remained indifferent, but once he started to collect tokens and earn rewards his motivation increased. Case 5 showed a decrease in motivation in the second week, because he did not enjoy stickers as tokens. When the stickers were replaced by money, he was motivated again. By the end of the treatment program, these children were reported to be regarding themselves as grown up, because they had acquired proper eating habits.

Besides the motivation and cooperation of the mothers and the children, another important factor was the cooperation of the other family members.



The three fathers who were indifferent to the problem were happy with the program and cooperated fully. The other two fathers had some doubts initially, but did not interfere with the program. Later, full cooperation was established with these fathers, too. The older siblings of cases 1,2 and 5 cooperated by being a model for their younger brothers, reinforced them to eat properly, and also enjoyed the occasional gifts they received to avoid sibling rivalry.

In the control group, motivation ratings for the mothers, and information about motivation and cooperation of the children and other family members were not obtained, because treatment was withheld from this group. Therefore, weekly discussions were not carried out with these mothers, and for this reason evaluations regarding motivation could not be made. On the basis of the failure of these mothers to fulfill the conditions to start the treatment program, some implications can be drawn about the motivation of these mothers which will be discussed in the Discussion section.

The Occurrence of Inappropriate Eating Behaviors In Every Week of  
the Treatment Program (Experimental Group)

Case No.	Week 1 (Before Treatment)	Week 2 (Phase I)	Week 3 (Phase II)	Week 4 (Phase III)	Follow-up I	Follow-up II
1	16	4	3	0	0 (3 weeks)	0 (8 weeks)
2	14	4	2	0	(4 weeks)	(8 weeks)
3	19	9	5	0	0 (5 weeks)	0 (8 weeks)
4	21	6	4	0	0 (3 weeks)	2 (7 weeks)
5	22	7	6	2	1 (2 weeks)	0 (4 weeks)

The Occurrence of Inappropriate Eating Behaviors  
in the Control Group

Case	First assessment	Second assessment (4 weeks later)
1	27	19
2	20	20
3	26	27
4	18	21
5	21	23

TABLE 5

Degree of the Mothers' Cooperation and Motivation  
(experimental group)

(motivation rating from 0-5, 0 = very uncooperative  
5 = very cooperative)

Case No.	Phase I	Phase II	Phase III.	Final score (average)
1	4	5	5	4.66
2	5	4	5	4.66
3	3	4	5	4.00
4	2	4	5	3.66
5	4	5	4	4.3

## D I S C U S S I O N

The results of this study indicate that the present treatment program was effective in improving the eating habits of young children. All of the five children in the experimental group were cured. Four of them showed 100% and only one 90,9% improvement. The control group on the other hand, did not show any improvement.

As mentioned in the results section, all of the cases in both groups have had feeding difficulties in their early years of life. Breast-feeding weaning and/or transition to solid foods were problematic in the majority of the cases.

It was mentioned earlier that according to the psychoanalytical view breast-feeding and weaning were very important in shaping the mother-child interaction, which determines the child's attitude towards food, and later object relations. Upsets in breast feeding and weaning were stated to disturb both the mother-child interaction and the child's attitude towards feeding. The finding that all of the cases have had some difficulties in these phases of development regarding feeding support the views of psychoanalytic authors regarding the development of feeding disorders. To have more information about the effects of upsets in these phases, another control group which consisted of children who have no feeding problems could have been taken, and their developmental history about feeding could have been compared with the other two groups with feeding problems. This was not accomplished in this study, but it seems worthwhile to investigate.

With regard to the type of feeding problem displayed and the educational

level of the parents, the experimental and control groups did not differ much from each other. The ages were not matched for the two groups, and mean ages were 4-11 for the experimental group, and 5-5 for the control group. However, age may not have been an important factor in the difference between these two groups, for the following reason. According to Gesell and Ilg (1946), at the age of four, a child's appetite is only fair, and he starts to show refusals and preferences. The child's struggle to be independent around this age manifests itself in trying to gain independence about what and how he eats, too (Dittmann, 1963). From five years on, however, Gesell and Ilg (1946) state that appetite usually shows a steady rise. According to this, the children in the experimental group are mostly in the low appetite phase, since the mean age is 4-11. Although most children in the control group are above 5-0 years of age, they have not shown improvement in four weeks.

The follow-ups could not be carried out in fixed periods of time for each case, partly because some mothers could not be located easily, and partly because of the differences in the time each case was terminated. In the first follow-up, only one case (Case 5) displayed one inappropriate eating behavior in two weeks. The mother of Case 5 reported that he did not like the food presented to him, and therefore said he could not finish his meal. It was the first time the child was getting acquainted with that food, and after he ate some of it he could not finish it. The mother said that she did not urge the child, but instead offered him some other food. She also stated that she thought maybe later the child would try that food again and like it. The second follow-up of this case (two weeks after the first follow-up) revealed that the child ate all of his meals adequately.

In the second follow-up, Cases 1, 2 and 3 still displayed no inappropriate eating behaviors. Case 4, however, was reported to have displayed

inadequate eating behaviors twice four weeks after the first follow-up. One of them occurred in the breakfast of the day he was going to get his report card. His mother reported that the child was anxious and nervous, and therefore could not finish his breakfast. The second inappropriate eating behavior occurred two days later at supper, where the child dawdled and it took him 45 minutes to finish his meal. The mother thought that this was because he was very tired since he had played with his friends all afternoon, and therefore she did not urge the child much.

A point which attracted attention in the discussions carried out with the mothers after termination was the attitude change of the mothers. Prior to the treatment, all the mothers had an idea on why their children had difficulty in feeding, but could not help urging and coaxing them. They were afraid that their children were going to develop some nutritional deficiency or lose resistance to ordinary infections when they failed to eat properly. There were also feelings of frustration and anger towards the children when they refused the food their mothers had prepared. At the termination of the program, all the mothers in the experimental group were observed to stop and evaluate the whole situation when their children had difficulty in eating, which they had lacked before treatment. Instead of urging, coaxing and punishing mindlessly, they accepted of child's state and let him eat within his appetite, without feeling upset or angry, because they could find out the reason for the child's difficulty at that specific meal.

This attitude change on the mothers' part seems to be the most crucial element in the rapid reduction of inappropriate behaviors and maintenance of the improved state. If no change had occurred in the mothers' attitude, it could have been expected that such improvements in children would not have occurred and a rapid relapse would have occurred after termination.

Several factors seem to have caused this attitude change in the mothers. First of all, all the mothers were explained how their urging and coaxing made food more aversive for their children, and hindered acquisition of proper eating habits. They were given an explanation about Clara Davis' study (1928, in Lehman, 1949) about self-selection of foods and self-feeding to assure the mothers about the reasonable limits of their youngsters' appetites. The functional analysis was very useful for the mothers in seeing that their children were getting sufficient nourishment, and also in understanding why their children were having difficulty at some specific meal. Some mothers realized that they were offering too much food to their children, and some realized that their meal hours were scheduled close together, leaving no time for their children to feel hungry. Furthermore, as the program progressed and the mothers filled out the functional analysis sheets, they were assured that their children could take sufficient nourishment when they were let free to manage their own feeding. The mothers were also shown on the functional analysis that when their children failed to get sufficient nourishment in one meal, there was a reason (fatigue, close scheduling of meals, etc.), and the children made up for it in the next meal.

Along with the functional analysis, it was essential to support the mothers in the weekly discussions about the changes in their attitude and behaviors during feeding. They were apt to feel guilty, thinking they were not fulfilling their motherly role, and also imagining that the other people in their environment considered them neglectful mothers. It was mentioned in the theoretical review section that motherhood was very closely associated with feeding in the minds of many mothers. In the weekly discussions carried out with the mothers, it was stressed that as the mothers reduced their anxiety in the feeding process, they would be able to devote more time



and energy to their children in some other area which would be enjoyable for both the mother and the child. In accord with this, all the mothers reported that their relationship with their children had improved by the end of the treatment program. In the description of Case 2 it is explained that this case also had a problem of nocturnal enuresis which was reported to have improved at the end of the treatment. This sudden reduction in bed-wettings may be due to the improved relationship with the mother, too, as implied in Konakçı's study (1982).

As the mothers' attitudes and behaviors in the feeding situation changed, tension in every meal was reduced, and with the introduction of self-selection of food and self-feeding, the children's attitudes towards food and feeding changed also. Since they were given more autonomy and initiative about what and how much they would eat, and since they were not urged and forced anymore, the children started to enjoy feeding. The mothers reported that their children started to try foods which they had used to refuse before, and even asked to be given some more food. Elimination of tension and friction at meal times made feeding more pleasurable for the children. Receiving tokens, love and praise from the mother when they ate appropriately, and thus earning rewards were also helpful in increasing the frequency and strength of adequate behaviors. Withdrawal of love and praise, and failure to earn tokens had an effect in reducing inappropriate behaviors. Since the mother was not urging, coaxing, scolding or punishing anymore, the reinforcers (secondary gains) of the inadequate behaviors were not present any longer. The child could not receive parental attention any more when he displayed undesired eating behaviors; instead he was confronted with indifference and removal of his dish which caused him to feel hunger pains until the next meal hour.

It seems like the initial explanation of the program to the child by the mother had an important effect on the child's attitude change. The mothers explained the program to their children by telling them that since they are four (or five) years old, it is time for them to learn to feed themselves like grown-ups do, and that they are going to help their children learn adult eating habits. Then the mothers gave an explanation of the program. Practicing more autonomy, and being treated like an adult increased the children's self-confidence. They greatly enjoyed being considered as a grown-up and behaving like one. Towards the end of the treatment program and after termination, some mothers reported that their children did not want to be approved of and praised any more after they ate adequately, because they considered their behavior to be an ordinary, normal behavior of a grown-up child.

After reducing the anxiety of the mothers and changing their attitudes, and after the children started to display adequate eating habits, all the mothers reported that meal times were not dreadful hours any more. They said that they started to enjoy meal times as a family once the struggle over feeding was eliminated. The mothers had stated that they frequently got into arguments with their husbands because of their way of dealing with the feeding difficulty. The fathers wanted peace during the meals, and were mostly in favor of letting the children manage their own feeding. Elimination of battles over feeding, self-feeding of children, and the changed attitude of the mothers helped to make meal tables peaceful and pleasurable for the whole family.

The discussion of the results up to this point brings about several interesting implications. Since the mothers' attitudes and behaviors appeared to have played a most important role in the initiation and maintenance of feeding difficulties, and changing their attitudes and behaviors were the most effective in improving eating habits, it may be speculated

that the problem resided mainly with the mothers, not the children. So working with the mothers, educating and training them may solve numerous problems. As observed in Konakçı's study (1982) and in this study, working with the mothers and training them in how to deal with the target problem behavior yielded good results not only in the elimination of that behavior, but also led to improved relations within the family and elimination of other problems.

Although this treatment program was effective in improving eating behaviors of children, there are some methodological shortcomings of this study which need to be discussed. These are mainly the small number of cases, non-random assignment of cases into the experimental and control groups, and variations in the times the follow-ups were obtained.

Although a larger number of cases were planned initially, it was very difficult to find subjects. Some mothers whose children had feeding difficulties did not want to take part in the program and said that the place where the weekly meetings were held were far from their house. Actually, where these mothers lived were not far away from the meeting place, so this indicated that these mothers were not motivated at all. This may be because feeding problems, although they cause suffering for the mother, are not considered as important as some other problems. Another reason may be that these mothers might have felt threatened at the idea of discussing their children's difficulties with a psychologist. It might be further speculated that feeding problems in these cases helped to maintain the family balance in one way or another, and these mothers avoided treatment because of their unconscious fear that the family balance would be disturbed with the elimination of feeding problems. This implies that the basic issue in the resolution of numerous disturbances is to activate the mother and

increase her motivation and cooperation. Once the mother is motivated intensive work with her may lead to the elimination of several dysfunctions in the family.

The difficulties in finding subjects led to a small number of cases, five in the experimental and five in the control group. Because of the small group sizes statistical computations could not be carried out within and between groups. However, the reduction of inappropriate behaviors to zero, and improvement of all the cases in the experimental group seem to be meaningful without any statistical computations. Furthermore, the small number of cases has provided the opportunity for intensive study of individual cases and to see variations in the procedure.

The cases could not be assigned to the two groups randomly, and also matched groups could not be formed, again due to the practical reasons mentioned above. The mothers who were willing to come to the therapist's office were assigned to the experimental group. The mothers who could not fulfill these requirements, but who agreed to fulfill the requirements of the control group were taken as control. One of these mothers lived in another city, and two mothers expressed their wish to be treated later in time when their conditions were suitable to fulfill the requirements.

These mothers in the control group may be considered to have lower motivation, too, which might have caused some bias on the results obtained. Since these mothers were not motivated for treatment, they were more apt to maintain their present pattern, and the results indicated that their children did not show improvement. So the issue may be not so much the program applied, but the mother's motivation. It seems like the mother's motivation is a crucial element in changing the disturbed pattern. A motivated mother would be expected to try her best to get rid of the

problem. Unmotivated mothers on the other hand, may not be much disturbed by the present pattern, and therefore may not be very willing to change. However, although the mothers in the experimental group were motivated, they were not able to eliminate the problem prior to treatment. So, it can be stated that the motivation of the mother is the essential factor, but it is also necessary to provide the motivated mothers with adequate training and support in how to cope with the problem.

Fixed times for follow-ups could not be applied, because it was difficult to locate the cases, and also each case was started and terminated at different times. Regular follow-ups would have given the opportunity to make better comparisons between the cases at specified periods of times after termination.

In spite of its shortcomings, this study was effective in pointing out the major factors effective in the treatment and avoidance of feeding problems. This study demonstrated the importance of the mother's attitude in the feeding situation. In all the cases, the mother's attitude towards feeding her child, and her worries and behaviors were influential in initiating and maintaining feeding disorders. These mothers, with the equation "love=feeding" in their minds, tried to feed their children excessively, urged, coaxed and scolded them without trusting the variations in appetites of their children. As a result, food became aversive for the children, and they further resisted feeding which led to an increase in the mothers' urges. The mothers could not give up forcing their children to eat with the fear that the children would get sick, and also because they were afraid to be considered as neglectful and rejecting mothers. For this reason, it is very important to provide the mother adequate grounds for attitude change, and support her along with it.

In the treatment program applied by the mother at home, the crucial factors are giving autonomy to the child in the feeding process, rewarding this adequate behaviors, and remaining indifferent to the inappropriate ones. The love and control mechanisms of discipline in these families seem to have extended over to the feeding situation, too, where the mother tries to "feed" the child with love, and at the same time has control over what, when and how much he eats. When given more reasonable amounts of food and more autonomy in feeding, the children rapidly learned to feed themselves appropriately. Although these were the main principles involved in treatment procedures, their application to individual cases show some variations as can be seen in Appendix C. It is suggested that these procedures should be adapted to each case according to the dynamics they present.

The most important indication of this study concerns the role of the parents in the initiation and resolution of problems. It was stated earlier that the mother's attitude and behavior were the most crucial factors contributing to eating disturbances. It was also mentioned that changing the mother's attitude and her motivation to change the disturbed pattern were essential for the resolution of the problem. In fact, in the case of feeding problems, the mothers who had initiated the problem played the most active role in the resolution of it. This was demonstrated in Jacob's study (1949), too. The same point can be observed in Konakçi's (1982) study with the mothers of nocturnal enuretic children. In this study, too, parents were effective in the initiation of the disturbance, but working with and training the mother led to elimination of the problem. Therefore, it seems necessary to develop preventive programs where parents are educated on how to avoid difficulties, and also treatment programs focusing on the attitudes and behaviors of parents.

In the future, it seems to be worth investigating these factors with large samples in more controlled studies. Since feeding problems are encountered very frequently in almost every society, these studies may lead to the development of preventive programs where parents may be educated on how to avoid these problems.

## REFERENCES

- Azerrad, J. and Stafford, R.L. "Restoration of Eating Behavior in Anorexia Nervosa through Operant Conditioning and Environmental Manipulation". In R.C.Katz and S.Zlutnick (Eds). Behavior Therapy and Health Care: Principles and applications. New York, Pergamon Press, 1975, 121 , 130.
- Bachrach, A.J.; Erwin W.J., and Mohr, R.J. "The Control of Eating Behavior in an Anorexic by Operant Conditioning Techniques". In L.P.Ullmann and L.Krasner (Eds). Case Studies in Behavior Modification. New York, Holt, Rinehart and Winston, 1965.
- Bandura, A. Principles of Behavior Modification. New York, Holt, Rinehart and Winston, Inc., 1969.
- Barragan, M. "The Child Centered Family". In P.J. Gurrin (Eds). Family Therapy, Theory and Practice. New York, Gardner Press, 1976, 232 - 249.
- Cansever, G. "Psychological Effects of Circumcision". British Journal of Medical Psychology, 1965, 38, 321 - 331.
- Cantela, J.R. and Upper, D. "The Behavioral Inventory Battery: The Use of Self-Report Measures in Behavioral Analysis and Therapy". In M. Hersen and A.S. Bellack (Eds). Behavioral Assessment. New York, Pergamon Press, 1976, 77 - 109.
- Craighead, E.W., Kazdin, A.E., and Mahoney, M.J. Behavior Modification: Principles, issues and applications. Boston, Houghton Mifflin Company, 1976.
- Dittmann, L.L. Your Child From One to Six. New York, Award Books, 1968.
- Fişek, G.O. "Psychopathology and the Turkish Family: A Family Systems Theory Analysis". In Ç. Kağıtçıbaşı. Sex Roles, Family and Community in Turkey. Bloomington, Indiana University Turkish Studies Series, 1982.



- Freud, A. "The Psychoanalytic Study of Infantile Feeding Disturbances".  
In The Psychoanalytic Study of the Child. Vol.2. New York,  
International University Press, 1946.
- Freud, A. Normality and Pathology in Childhood: Assessments of Development.  
New York, International Universities Press, 1965.
- Gambrill, E.D. Behavior Modification: Handbook of Assessment Intervention  
and Evaluation. San Francisco, Jossey - Bass Publishers, 1977,  
280 - 357.
- Gardner, W.I. Children with Learning and Behavior Problems A Behavior  
Management Approach. Boston, Allyn and Bacon, Inc, 1974.
- Garfinkel, P., Kline, S. and Stancer, H. "Treatment of Anorexia Nervosa  
Using Operant Conditioning Techniques". Journal of Nervous and  
Mental Disease. 1973, 6, 428 - 433.
- Geçtan, E. "Toplumumuz Bireylerinde Kimlik (Identity) Kavramları ile ilgili  
Sorunlar Üzerinde bir Tartışma (A Debate on Problems Concerning  
Identity Concepts in the Individuals of Our Society)". In 50. Yıla  
Armağan, Ankara, Eğitim Fakültesi Yayınları, 1973, 63 - 77.
- Gelfand, D.M. and Hartmann, D.P. Child Behavior Analysis and Therapy.  
New York, Pergamon Press, 1975.
- Gesell, A. and Ilg, F.L. The Child from Five to Ten. New York Harper and  
Brothers Publishers, 1946.
- Hersen, M. and Barlow, D.H. Single Case Experimental Designs. New York,  
Pergamon Press, 1976.
- Hilts, P.J. Beh. Mod. New York, Harper's Magazine Press, 1974
- Ireton, C.L. and Guthrie, H.A. "Modification of Vegetable-eating Behavior  
in Preschool Children". Journal of Nutrition Education. 1972, 4  
100 - 103.
- Jacobs, Lydia. "Methods Used in The Education of Mothers". In The  
Psychoanalytic Study of the Child. Vol. 3/4. New York, International  
Universities Press, 1949, 409 - 423.

- Jeffrey, D.B. "External vs. Self-Control in the Management and Maintenance of Weight Loss". In R.C.Katz and S.Zlutnick (Eds). Behavior Therapy and Health Care: Principles and Applications. New York, Pergamon Press, 1975, 601 - 618.
- Kağıtçıbaşı, Ç. Çocuğun Değeri: Türkiye'de Değerler ve Doğurganlık (The Value of Children: Values and Fertility in Turkey). İstanbul, Boğaziçi Üniversitesi Publication, 1981.
- Katz, R.C. and Zlutnick, S. "Behavior and Health Care: Review and Perspective". In R.C.Katz and S.Zlutnick (Eds). Behavior Therapy and Health Care: Principles and Applications. New York, Pergamon Press, 1975, 1 - 34.
- Kazdin, A.E. "Single - Case Experimental Designs in Clinical Research and Practice". In A.E.Kazdin and A.H.Tuma (Eds). New Directions for Methodology of Social and Behavioral Sciences: Single - Case Research Designs. No. 13, San Francisco, Jossey - Bass, Sept.1982.
- Konakçı, S.H. A Program For the Treatment of Nocturnal Enuresis. Unpublished Masters Thesis, İstanbul Boğaziçi University, 1982.
- Köknel, Ö. Türk Toplumunda Bugünün Gençliği (Today's Youth in Turkish Society). İstanbul, Bozak Matbaası, 1970.
- Le Compte, G., Le Compte, A., and Özer, S.A. "Üç Sosyoekonomik Düzeyde Ankara'lı Annelerin Çocuk Yetiştirme Tutumları: Bir Ölçek Uyarlaması (Child-Rearing Attitudes of Mothers in Ankara, from Three Socio-economic Levels: A Scale Adaptation)". Psikoloji Dergisi, Cilt I, Sayı, I, 1978, 5 - 9.
- Lehman, E. "Feeding Problems of Psychoenic Origin: A Survey of the Literature". In The Psychoanalytic Study of the Child. Vol.3/4, New York, International Universities Press, 1949.
- Levy, D. Maternal Overprotection. New York, W.W.Norton and Company, Inc., 1966.
- Mann, R.A. "The Behavior-Therapeutic Use of Contingency Contracting to Control an Adult Behavior Problem: Weight Control". In R.C.Katz and S. Zlutnick (Eds). Behavior Therapy and Health Care: Principles and Applications. New York, Pergamon Press, 1975, 567 - 584.

- Meichenbaum, D. Cognitive Behavior Modification: An Integrative Approach. New York, Plenum Press, 1977.
- Öztürk, M.O. "Anadolu Kişiliğinde Özerklik ve Girişme Duygularının Kısıtlanması (Inhibition of Autonomy and Initiative in the Anatolian Personality)". In Beşinci Milli Nöro Psikiyatri Kongresi, 1969.
- Rathus, S.A. and Nevid, J.F. BT: Behavior Therapy. New York, Doubleday and Co., Inc., 1977.
- Ross, A.O. "Behavior Therapy". In B.B. Wolman (Eds). Manual of Child Psychopathology. New York, McGraw - Hill Book Company, 1972, 900 - 925.
- Ross, A.O. Psychological Disorders of Children: A Behavioral Approach to Theory, Research and Therapy. New York, McGraw - Hill Book Company, 1974.
- Spock, B. Baby and Child Care. New York, Pocket Books, Inc., 1964.
- Thom, D.A. Child Management. Washington D.C., Government Printing Office, 1925,
- Verville, E. Behavior Problems of Children. Philadelphia, W.B. Saunders Co., 1967.
- Yates, A.J. Behavior Therapy. New York, John Wiley and Sons, Inc., 1970.
- Yörükoğlu, A. Çocuk Ruh Sağlığı (Child Mental Health). Ankara, Türk Tarih Kurumu Basımevi, 1980, 35 - 45.

Case I

Case I was a 4-4 year old boy, who displayed loss of appetite and finickiness, and demanded to be fed by his mother.

The mother was not working at present, but she had been teaching History of Art until the birth of her first child. The father was an architect, and was working for an institution. The family had an older daughter, nine years old, who never had a feeding problem. The rest of the family consisted of the grandmother (father's mother) an adolescent girl who lived with the family and helped with the domestic work.

Case I had normal birth, but could not be breastfed due to the contractions of the breast muscles of the mother, therefore, he was introduced to the bottle right after birth, and was schedule-fed.

The child had a normal development until he was two and a half year old, when he had a kidney disturbance. He was treated in a hospital for a month, and after the treatment he had to follow a restricted diet for about a year. After this period, he had totally recovered, and could go back to a normal diet. However, the child's appetite did not recover, and despite the parents' efforts, he was still finicky about food and refused to eat unless they fed him.

According to the mother, the reason for the child's feeding problem was that he was exposed to two extreme attitudes toward feeding, one extreme following another. While the child was forbidden to eat many things for medical reasons during treatment, after recovery he was suddenly urged to eat everything. The mother referred to this period of medical treatment as a period of distress for both the child and the parents; because while the child was forbidden to eat many of the foods children love, the parents had to control him to maintain the diet. The child was permitted to eat a small variety of foods, and to control what he ate, the mother fed the child herself. According to the mother's report, the child's appetite slowly decreased and started to

fuss over the food presented to him.

After the diet was over, the child's poor appetite, finickiness and demands to be fed continued, although the restrictions were over and the child was presented a variety of foods. The mother described the situation as, "it is as if he makes us pay for his past sufferings."

During the week prior to the treatment, Case I displayed inappropriate eating behaviors in 16 of the total of 38 feeding situations. In all of these 16 situations, he required the urging and feeding of the mother, and did not want to eat his food, or left it unfinished, despite the mother's efforts.

In phase I, the child could adequately complete 15 meals, and thus earned three rewards. (matchbox cars, crayons and coloring books). The mother reported that the child did not show any negative reaction when she explained the program, and in fact he was very amused with the idea of tokens and rewards. The father and the grandmother cooperated and reinforced the child's appropriate behaviors.

At the end of phase I, the mother reported that she felt more relaxed after she saw that the child could manage to feed himself when she withdrew from the situation.

At the beginning of phase II, the child had a flu, and therefore his appetite was low for two days. Nevertheless, he sat at the table and helped himself to some food. After he was feeling better, he managed to collect 22 tokens and was given a toy as a reward. The mother was very happy, because the child had started to ask for and try new foods that he had never tasted before, and enjoyed them.

In the third phase, the child appropriately finished all of his meals and earned a big toy truck which he had been asking for for a period of time. The child's initial weight of 16 Kg. was now 17 Kg., and the family was

very much relaxed regarding the child's eating.

A three-weeks follow-up revealed that the child continued to display appropriate eating behaviors in every meal. The mother was called again 8 weeks after termination, and she reported that at the sixth week the child had another flu, and therefore had a low appetite. He was not urged to eat during that period, and after he recovered his appetite was normal again and he ate appropriately.

In this case, the rigid restriction and control over feeding on medical grounds seem to have taken away the pleasurable of feeding. The parents' anxiety about maintaining the diet led them to completely take over the feeding situation, therefore the child could not learn to feed himself. Since he was exposed to only a limited variety of foods, after recovery, he could not adequately select what he wanted to eat, and had a finicky attitude toward food.

When the anxiety and control of the parents in the feeding situation was relaxed, and the child was permitted to feed himself with what he chose from the table, his negative attitude towards food diminished. His appetite recovered and he started to get interested in new foods, broadening his repertoire. As he got acquainted with new tastes and started to practice self-feeding, his finickiness and demands from his mother gradually disappeared.

Case 2

Case 2 was a 5-3 year old boy whose mother was a housewife, and whose father was a civil engineer. He had an older sister, 8 years old, who was attending third grade.

The feeding problem in this case was the refusal of the child to eat unless fed and entertained by the mother. The amount of food the child ate and his appetite were considered to be satisfactory by the mother, but she was tired of spoon-feeding him herself, and therefore asked for treatment.

Case 2 had a normal development, and did not have any other problem, except for nocturnal enuresis. Although his toilet training had been easily completed when he was 2-6 years old, he occasionally wetted his bed at night. According to the mother, this occurred during the evenings. When the child consumed too much liquid. The mother was trying to solve the problem by reducing the amount of liquid intake in the evenings.

The child was only breast-fed for 3 months, after which he was both nursed and bottle-fed. When he was 13 months old, the mother abruptly weaned him from her breast. The child reacted by crying for two days. The mother informed that, when he was a baby, case 2 had to be urged to eat, and reacted to solid foods, too, by keeping the food in his mouth. For this reason, the meals lasted for took one or two hours, and to accelerate the meals, the mother always fed the child herself. Now the mother thought the child was old enough to feed himself, but the child could or would not finish his meal when she did not help him. The mother reacted to this sometimes by getting angry and shouting at the child and sometimes by telling him stories, so that he would eat. These did not solve the problem, because according to the mother, the child was certain that she would feed

him when he did not feed himself, because the mother was worried that he would lose weight. The father was not much worried about this matter, and blamed the mother for maintaining the problem because of her worries. He believed that, the child would eventually learn to feed himself, if the mother could let him stay hungry for several meals. The mother opposed this because she was afraid that the child would lose weight and get sick.

In the initial and the second interviews, such worries of the mother were discussed and her anxious attitude towards feeding her child were decreased. In phase I, she was instructed to let the child practice self-feeding and if he could not do so, she was told to reinforce teach him in the form of play. A daily play session for the mother and the child were scheduled because the child did not have much time with the mother.

The meal hours were rescheduled, because they were very close to each other, and therefore did not allow much time for the child to feel hunger.

In phase I, the child could appropriately finish sixteen meals. He earned three rewards for this. (A toy-gun, two story books, and going to the movies). The mother reported that the first day was difficult, because he could not easily adjust to the new system, and he had difficulty in handling his fork and spoon. The tokens (stickers) and rewards however, were very attractive for him and after he earned the first reward his performance improved rapidly. This improvement convinced the mother that the child could adequately feed himself even if she did not feed him.

The number of adequately completed meals in Phase II was nineteen, and as a reward the child was given a football he had been wishing for. The information gathered from the mother and the functional analysis revealed that, the child slowed down and could not concentrate on his meal after he



ate a certain amount of food. In such instances the mother had to remind him to get him back to his meal. The amount of food consumed by the child until he lost interest was enough to satiate his hunger. Beyond that point of satiation, food lost its former attraction for the child, and therefore he would not eat appropriately. This was explained to the mother and it was decided to present smaller amounts of food to the child.

Reducing the amount of food presented to the child yielded good results in Phase III. The child was successful in all of his meals, and he even asked for some more food in several meals. The mother said that the child was now enjoying every meal, and considered himself grown-up because he could eat by himself. The child was rewarded with a big electric toy car which he liked very much. The mother also reported that the child's enuresis had improved since phase II had started, and he did not have any accidents for two weeks. According to the mother, this was due to the child's belief that he was grown-up and should act like a grown-up. Besides this, changes in the mother-child interaction introduced by the treatment program might have served as a factor in reducing accidents. Elimination of battles over feeding and providing more opportunities for the mother and the child to be together to play, and withdrawal of parental attention from inappropriate eating behaviors and reinforcing the appropriate ones seem to have generalized to his bedwettings also.

In a four-week follow-up, the mother reported that the child displayed no inappropriate eating behaviors. Two months after termination, it was learned that the child still maintained the pattern and his bedwettings were improved.

The feeding problem of Case 2 was due to the lack of opportunities to learn appropriate eating behaviors. The child was always fed by his mother

therefore could not practice self-feeding. When the mother got tired of spoon-feeding the child herself, and wanted the child to feed himself, the child resisted by demanding to be fed and entertained. Since the child did not have much interaction with the mother, the attention he was receiving from her at the mealtimes when he displayed inappropriate eating behaviors were rewarding. Removal of this attention from the feeding situation to the play sessions with the mother, and reinforcing desired behaviors by social reinforcements and rewards were effective in improving both his eating habits and enuresis.

Case 3

Case 3, a 5-1 year old girl, was the only child of the family. The mother was a chemist, and had recently started to work parttime as a secretary of the father who was a lawyer. During the mother's work hours, the child was taken to the father's office. The parents had recently decided to send the child to a nursery school while the mother worked.

The mother described Case 3 as an intelligent, talkative little girl. Being an only child, she was very much indulged and pampered by both parents. The mother considered her daughter a sensible child, because she could be easily managed by having things explained to her. The feeding difficulties displayed by Case 3 were low appetite, finickiness and lack of self-feeding.

Case 3 had a normal birth, but was slightly underweight, therefore the mother was anxious about feeding the baby. The child on the other hand resisted breast-feeding, so she was also bottle-fed. The mother considered nursing and mother's milk a very important element for both nourishment and mother-child interaction, and therefore continued to nurse the child in spite of her resistance, until she was two and a half months old when she completely weaned herself. After weaning, the child easily adjusted to new liquids and specifically enjoyed fruit juice. Transition to solid foods did not cause a problem, either.

The parents were extremely careful in regulating the child's diet, so that she would get enough nourishment. As she grew up, however, the child resisted many kinds of food, and was not very interested in her meal. The mother thought the child was not getting sufficient nourishment, and therefore she fed the child herself, because the child failed to do so.

According to the mother Case 3's eating difficulties were partly due to the parent's attitudes towards food, and partly to the child's conscious use of feeding as a threat against them. Both parents were finicky themselves and did not eat regularly. Besides this, the child sometimes refused to eat when the parents frustrated a wish.

His daughter's eating problem especially bothered the father, because he wanted his child to be raised perfectly in every aspect. His emphasis on perfection sometimes led to arguments with the mother, because she insisted that bringing up a perfect child was impossible. The mother said that she was trying hard to bring up her daughter most adequately, but admitted that sometimes she made mistakes. She thought that she needed more contact with the external world to be effective with her child. Since her husband occasionally needed help in his office, they decided that she would work there which would both provide her some external activities and sufficient time with her child.

Before phase I started, more regular meal hours were scheduled with the mother which would suit the family's program and allow the child to eat three meals and at least one snack. The importance of well-scheduled regular meals, and self-feeding was discussed with the mother.

In phase I, the child earned seventeen tokens and got three rewards in return (hairpins, ribbons and crayons). The mother reported that on the days the child was taken to the nursery school breakfast were a problem. The child cried and said she did not want to go to the school, and could not finish her breakfast. The mother felt sorry for the child, and fed the child herself. Discussion with the mother revealed that she could not avoid feeding the child, because she thought otherwise the child would have to go hungry and feel rejected.

To reduce the child's possible feelings of rejection and the mother's guilt feelings, and the separation anxiety, play hours were scheduled. The mother was advised not to feed the child when she did not eat, but to remind her once or twice in the form of play, and to ignore it if she still did not eat. On the weekends, it was decided that they should engage in an activity as a family, in which the child could participate and enjoy (like playing games, going out together, going to the movies).

In phase II, the mother reported that the child started to enjoy both the school and her meals. The child made friends in the school and was the leader of her group. She had lunch twice in the school, and even ate spinach which she had never wanted to taste before. The mother was very happy also because the child started to drink milk which she had been refusing for one year. After trying milk with strawberries, the child liked it, and started to ask for it.

The mother said that they both enjoyed the play sessions. Also, breakfasts were reported to have improved. The child earned twenty-one tokens, fourteen from the meals, and seven from the snacks. During the rest of the meals, she could not earn a token, because she could not finish her meals. The functional analysis revealed that when the child ate a small amount, she was either tired, or the amount presented was too much. She made up for the deficiency, however, the next meal by eating a larger amount. This was discussed with the mother by going over the functional analysis and demonstrating how the child regulated her nutrition herself.

In phase III, the child successfully completed twenty-one meals and twelve snacks. The mother happily reported that the child asked for desert and started to help herself to milk from the refrigerator. The mother was now assured that the child could regulate herself when provided the

opportunity, and was much relaxed during the meal hours. The father was very happy with his daughter's improvements, too, and he called the therapist to thank her in helping to produce such changes. They rewarded the child with a doll, and the family went out to dinner on the weekend.

The mother's feelings and attitudes were discussed before termination. She felt happy with the child's feeding, and said that she realized that her previous urging was useless, and that now she would trust her daughter's self-regulating appetite.

In a four-week follow-up, it was learned that the child continued to feed herself properly, and even objected to the parents' praises after she finished her meals, because she considered it a most natural behavior now. Seven weeks after the first follow-up, the mother reported that the child's performance was perfect and was happy with it.

In this case, the feeding difficulties seem to have been initiated and maintained by several factors: Mother's anxiety about feeding the child when she was a baby, and forcefully breast-feeding her seems to have been the first step in the emergence of the eating problems. Later, the parents' finicky attitude towards food seems to have been adopted by the child, too. The child's separation anxiety, and hostility towards the mother for leaving her were expressed in her refusal to eat, and the mother maintained it by feeding the child herself, due to her guilt feelings for leaving the child. In phase I for example, the child's anxiety about leaving the mother disturbed her performance in breakfasts. The mother, on the other hand, due to her own guilt feelings about leaving her daughter, could not help keep herself from feeding the child. She tried to prove to the child that she loved her by feeding her daughter herself. Such behavior by the mother also provided positive consequences for the child's inadequate behavior, in the form of parental attention. Removal of such attention from inadequate eating behavior, reinforcing desired behaviors instead, and providing

approved opportunities to receive love and attention yielded good results.

Case 4

Case 4, was a 5-11 year old boy, whose eating problem was refusal to eat, demanding entertainment, help and coaxing. He had recently started primary school, and had classes from morning till noon. He was the single child of his parents. The mother had had a high school education and now was a housewife. The father was a university graduate and had his own business.

Case 4 adapted to school well, and was a good student, although he was younger than his classmates. The mother said that she was worried when the child started school, both because he was young, and also because she and her son were much attached to each other. She admitted that she could not help being overprotective because he was their only child. She explained that she tried to fulfill every wish of the child, but when she failed to do so, he got nervous and demanding. The father had less contact with the child because he had to work late, and was more disciplinary towards him.

Case 4 had a difficult birth and was taken born by forceps. After birth there were no complications and he had a normal development. He was breast-fed for fifteen days until he refused the mother's breast. The mother thought this refusal might have been due to the change in the taste of her milk because of the pills she was taking for her allergies. The child was then only bottle-fed until he was five months old when he started to eat mashed foods. He was gradually introduced to solid foods and he accepted them without much difficulty. The mother described feeding as being easy until the child was one year old, although she always entertained him with his toys while eating. After he completed his first year, the child first started to refuse puddings and gradually this resistance extended to other foods. The mother could not state why this refusal

started, but she urged the child to eat, and entertained him for hours to feed him. When he was younger, the mother accepted the situation, but lately she got upset and tired of this situation. Before treatment, Case 4 was still urged to eat, and his mother fed him while he played with his toys or was busy with something else. The mother admitted that her own anxiety might have served to initiate and maintain this pattern.

During the week prior to treatment, Case 4 needed to be urged and entertained, and fed by the mother in twenty-one feeding situations. Seven of the ten adequately completed meals were the snack hours in class. His teacher observed the child and reported that he ate his snack completely, without difficulty. The rest of the appropriately finished meals occurred at supper times where the child was presented with his favorite foods.

Functional analysis and the mother's complaints revealed that the child was more interested in foods like biscuits and chocolate, rather than his meal. The mother explained that this led to a friction between herself and her son, because Case 4 insisted on eating chocolate biscuits before the meal. When the mother refused to give the child what he wanted, he got angry, cried and did not want to eat his meal.

Before phase I was started, the mother was advised to withhold junk foods from the child until the meal was finished. She was told to explain to the child that he has to learn to wait now, because he is growing up, and is not a baby any more. Every time the child wanted chocolate biscuits before a meal, the mother was going to make a game out of it by saying, "Let's see how long you can wait today". Whenever the child could willingly and easily delay gratification, the mother was advised to praise and reinforce the child.



At the end of phase I, the mother reported that within two days this procedure worked out, and the child could even wait for his afternoon snack hour to eat his chocolate biscuits. He collected fifteen tokens and learned three rewards (color pencils, erasers and a toy airplane) in return. However, the child's performance dropped down towards the end of the week. The mother said that the child had a vaccination in the middle of the week at school, and was not feeling well, which affected his performance. From the functional analysis, it was observed that the mother tried to urge the child again during the period when he was affected by vaccination. She said she was worried that the child would lose weight and tried to feed the child more during the snack hours to make up for what he lost during the meals. The mother was led to discuss what would happen if the child missed meals and lost some weight. She was then explained that normally appetite decreases when a child is sick and that food become aversive and the child resists more when he is urged to eat in such a state. It was also explained that overfeeding him in snack hours is not a solution, because the child does not feel hungry for the next meal and resists feeding. This discussion and demonstrating that the child's did not decrease in a week reduced the mother's worries and anxiety.

Since the child spent all his time at home with the mother when he was not in school, and was much dependent on her, he was usually restless and nervous at home. This was explained to the mother by saying that as a child grows up he gradually needs to increase his contact with the outer world, and needs to interact with his peers, too. She was advised to let the child play in the garden with his peers, and reinforce those behaviors. That lead to individuation. To facilitate separation from the mother, play hours for the father and the child were scheduled.

In phase II, the child was feeling better and earned twenty-two tokens. He was given a pencil box at which he was delighted. The mother was very pleased and said that her worries were reduced, because the child gained 250 gr. this week. She reported that during the meals when the child was slow, she tried to feed him out of habit, but the child reminded her that he could do it himself. The mother informed the therapist that the father noticed the child's improvement, too, and was much pleased with it. The child was also said to enjoy his play outside, with his peers, and the mother admitted that they had less friction this week.

In phase III, the child had a perfect performance, and earned thirty-five tokens. The parents presented him with a pair of gym shoes and a football. On the weekend, the father took the child to a football game which the child enjoyed very much. The father and the son decided to repeat this in the future.

At the termination of the program, the mother was pleased with the child's performance, and she was assured that the child could manage himself in feeding and other activities without her interference. She was more relaxed and said that as the child engaged in more external activities and became less dependent on her, she could do things she enjoyed, and that their relationship improved.

A follow-up three weeks after termination revealed that Case 4 maintained his perfect performance. A month later, in the second follow-up, it was learned that the child displayed inappropriate eating behaviors twice. One occurred during the breakfast of the day he was going to get his report card. He could not finish his meal, because he was anxious and restless. The mother said that she did not urge the child, because she knew 17 was useless. The second inappropriate behavior occurred two days

later during supper, when the child could not finish his meal. According to the mother, the child was very tired and sleepy, because he had been playing with his peers all day long.

In this case, the mother's overindulgence and control over the child had allowed no opportunity for the child to learn proper eating. Besides, overindulgence had accompanied restriction of the child which led to both strong attachment and resentment in the child which seems to have found expression in the feeding situation. Reinforcing proper eating habits, and, at the same time, allowing separation and individuation have yielded good results.

Case 5

Case 5, was a little boy, 4-2 years old. He was the younger child of the family, and had an older sister in the third grade who was nine years old. The mother was a housewife, and she had a high school education. The father had quit school in his second year at the university and now was in business.

The mother defined Case 5 as a nervous and stubborn child who had better relations with others outside the family. He could not get along well with his sister because she was equally stubborn and could not tolerate his wrongdoings. The father pampered his son more, and was on his side when she fought with his sister.

The father did not spend much time with the family because of his business. The mother complained that he spent his weekends, out with his friends, playing soccer, and she had to deal with the children and stay at home all the time.

Case 5 had a normal birth, but had an eczema when he was twenty days old. Until that time, he was both bottle and breast-fed, because the mother did not have sufficient milk. After the onset of eczema, the child did not want the breast and was only bottle-fed from then on. The mother reported that spoon-feeding was easily accepted by the child, although at the beginning he did not enjoy some solid foods.

The mother explained that her daughter had had feeding difficulties, too, but she improved after she started school. She said that she was ~~aborted~~ feeding her second child, too, especially after he had eczema. She admitted that the child never engaged in self-feeding, because she never allowed him to do so, and fed him herself. After he ate a small amount of food, he refused to eat more, and left the table. Both the mother and the

father were upset by this condition. The father reacted with anger, and sometimes spanked the child when he left the table.

In the functional analysis of the week before the treatment, thirty-five inappropriate eating behaviors were observed out of thirty-five feeding situations. In all of them the mother fed the child. In several, he did not want to eat anymore, and occasionally left the table.

Before the instructions for phase I were given meal hours were rescheduled to leave sufficient time between the meals for the child to feel hunger. The application of phase I was discussed with the mother, and she was advised to discuss it with the father, too, making sure he understood the program and cooperated.

The mother was told that they should explain the program to their daughter, too, and tell her that since she is more grown-up, and has learned to eat properly, they need her help, too, in teaching her brother proper eating habits. It was advised that she should receive small gifts now and then, and that these gifts be given by the father more frequently, to help them improve their relationships.

In phase I, the child earned 10 tokens, and was given comic books and a small basketball game. He refused to eat completely in two meals, because he was not hungry. In the rest of the feeding situations he could not complete his meals although he had started to eat. He made up for the meals where he ate less, by eating more at the next meals. This was shown to the mother on the functional analysis, and she realized that the overall daily food intake by the child was sufficient.

In phase II, besides the basic instructions, it was said that the father should play with the children in the evenings. For the weekends, it was decided that Case 5 would go with his father to play soccer, while the mother went out with his daughter.

Since the child had lost interest in stickers as tokens. It was decided with the mother that in phase II the child should earn 10 T.L. for each appropriately completed meal.

This week, the child earned twenty-two tokens and saved 220 T.L. He was also rewarded with a flashlight which he had been asking for. The mother reported that the child started to enjoy his meals, and stayed at the table even if he did not want to eat anymore. In the weekend he played soccer with his father, and also took his mother and sister to the movies with the money he earned. The mother said that she later gave the child the same amount of money, saying that he deserved this.

In phase III, the child earned thirty tokens, and asked for another flashlight. He could not finish his meal in three lunches this week, because he woke up late and therefore had little time between breakfast and lunch. In all of these three situations, though, he ate appropriately plenty of food in the meals following. Since the child was making up for a lost meal himself, and the mother was not worried anymore phase III was not repeated.

At the termination of the program, the mother said that she was very happy with the child's eating now. She told the therapist that keeping a record of what the child ate and her discussions with the therapist, assured her that the child was getting enough nourishment and reduced her anxieties over feeding. She was no longer feeling depressed when the child failed to complete his meal. Two weeks later, the mother reported that the child had difficulty during one meal, where he was introduced with a new food which he did not enjoy much. When he could not finish it, the mother

him some other food. Two weeks after, it was learned that he hold perfect performance.

In Case 5, too, the feeding difficulty was reinforced by the anxious attitude of the mothers, her not allowing an opportunity for the child to acquire proper eating habits. The father's reaction to the child's problem seemed to reinforce the child's behavior. Although it was in a scolding manner, the child was receiving attention from the father who did not spend much time with them.

Changes in the parent's attitudes, and having the father spend more time with the family helped to improve Case 5's eating habits and other relations at home.