Non-Prescriptive Behavior Therapy: Effectiveness of a Self-Help Book in Teaching Parents How to Manage Their Child’s “Picky Eating” Behavior

Sean T. Smitham

Follow this and additional works at: https://scholarworks.wmich.edu/masters_theses

Part of the Psychology Commons

Recommended Citation
NON-PRESCRIPTIVE BEHAVIOR THERAPY: EFFECTIVENESS OF A SELF-HELP BOOK IN TEACHING PARENTS HOW TO MANAGE THEIR CHILD'S "PICKY EATING" BEHAVIOR

by

Sean T. Smitham

A Thesis
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
Degree of Master of Arts
Department of Psychology

Western Michigan University
Kalamazoo, Michigan
December 2002
The term “nonprescription” behavior therapies was first used by Rosen (1979) to describe behavioral interventions that could be totally self-administered without professional consultation. In his article, Rosen warned that empirical validation of self-help programs was needed. The present study examines the effectiveness of one such self-help program intended to help parents manage a minor pediatric feeding problem - “picky eating”. “Picky Eating” (i.e., mild selectivity or selective eating) appears to be a common and relatively persistent feeding concern of otherwise typically developing children. Mild selectivity is usually regarded as a sub-clinical feeding problem. In the present study, five families with children 2-6 years old identified as “picky eaters” were asked to follow the suggestion in a self-help book for parents of “picky eaters” (the independent variable in the study). Results indicate that while all subjects reported that the self-help book was helpful enough to recommend the book to a close friend or family member (a rough measure of social validity) the symptom report data rarely reflected the sign data collected.
## TABLE OF CONTENTS

LIST OF TABLES ........................................................................................................ iv

LIST OF FIGURES .................................................................................................... v

CHAPTER

INTRODUCTION ................................................................................................ 1

LITERATURE REVIEW ..................................................................................... 2

  Pediatric Feeding Problems - Overview ...................................................... 2

  Pediatric Feeding Disorders - Clinical ....................................................... 3

  Pediatric Feeding Problems - Subclinical ................................................... 6

  Anticipatory Guidance ................................................................................ 9

  Parent Training .......................................................................................... 14

  Bibliographic Materials ............................................................................. 15

METHODS ........................................................................................................ 17

  Subjects and Setting .................................................................................. 17

  Independent Variable ................................................................................ 18

  Dependent Variables ................................................................................. 20

  Recruitment .............................................................................................. 22

  General Procedure ..................................................................................... 22

  Experimental Design ................................................................................. 23

RESULTS .......................................................................................................... 25
Table of Contents—Continued

CHAPTER

DISCUSSION..................................................................................................... 34

CONCLUSION .................................................................................................. 42

APPENDICES

A. Sample Clinical Feeding Protocol................................................................. 44
B. Daily Progress Report ................................................................................. 46
C. Feeding Assessment Form ........................................................................... 48
D. Child Eating Behavior Inventory................................................................. 55
E. Satisfaction Survey ....................................................................................... 59
F. Satisfaction Survey Results .......................................................................... 62
G. Post-Evaluation ............................................................................................ 65
H. Figures .......................................................................................................... 67

BIBLIOGRAPHY ............................................................................................... 71
LIST OF TABLES

1. Classification System ........................................................................................................ 4
2. Mild Feeding Problems Protocols ..................................................................................... 10
3. Descriptive Overview of “Coping With a Picky Eater” ..................................................... 19
4. Child Eating Behavior Inventory (CEBI) Results ................................................................. 27
5. Feeding Assessment Form (FAF) Changes ........................................................................... 27
LIST OF FIGURES

1. Subject 001--NP Index, Evening Meal Consumption, Total Daily Portions...... 26
2. Subject 002--NP Index, Evening Meal Consumption, Total Daily Portions...... 28
3. Subject 003--NP Index, Evening Meal Consumption, Total Daily Portions...... 30
4. Subject 004--NP Index, Evening Meal Consumption, Total Daily Portions...... 31
5. Subject 005--NP Index, Evening Meal Consumption, Total Daily Portions...... 33
6. Victim's Escape Model .................................................. 38
7. Victim's Punishment Model............................................. 39
INTRODUCTION

The term "nonprescription" behavior therapies was first used by Rosen (1976) to describe behavioral interventions that could be totally self-administered without professional consultation. At that time, psychology was beginning to witness a "proliferation" of self-help programs for everything from weight loss to parenting and even sexual dysfunction. In his article, Rosen (1976) warned that empirical validation of self-help programs was needed.

Behavioral programs for varied clinical problems have already been marketed or are in press without having been subjected to controlled clinical trials. Consequently, consumers run the risk of purchasing treatment programs that may be ineffective or harmful when used on a totally nonprescription basis. (p. 140)

Since then, the self-help industry has continued to flourish and now represents a billion-dollar industry here in the United States, and yet many of these self-help programs have not been empirically validated. The present study examines the effectiveness of one such program intended to help parents manage a minor pediatric feeding problem - "picky eating".
LITERATURE REVIEW

Pediatric Feeding Problems - Overview

Psychologists are increasingly becoming involved in the diagnosis and treatment of pediatric feeding disorders. A recent survey of psychology consultation requests from 1989-1994 at Columbus Children's Hospital found that 10-20% per year concerned some type of feeding or eating problem (Linscheid, Budd, & Rasnake, 1995). Pediatric feeding problems can occur in children with medical conditions, children with developmental disabilities, and normally developing children (Linscheid et al., 1995). Prevalence figures for pediatric feeding problems are difficult to gather and report due to the wide variety of childhood feeding disorders, the many disciplines called upon to deal with these problems (e.g., nurses, physicians, nutritionists, psychologists, occupational therapists), and the lack of a standard classification system for childhood feeding disorders (Linscheid, 1992). A best guess estimate based on a variety of settings would suggest that 25-35% of all children have recognized or reportable eating problems (Kessler, 1966; Linscheid et al., 1995; Palmer & Horn, 1978). The high estimated prevalence rate is partially due to the fact that many children born prematurely or with severe medical complications are now surviving thanks to advances in medical and surgical techniques. These children represent a special challenge to pediatric psychologists as they frequently have feeding problems related to the medical condition or induced iatrogenically as a result of treatment (Ginsberg,
1988) as will be discussed in more detail later.

As noted above, a standard classification system for childhood feeding disorders does not exist. This is due, in part, to the wide variety of such problems. Indeed, one of the most challenging aspects of classifying and treating childhood feeding difficulties is that they often have multiple types of problems with more than one cause (Linscheid, 1992). Palmer, Thompson, and Linscheid (1975) proposed a classification system for childhood eating problems based on the nature of the problems and the possible causes, a system that was later expanded by Linscheid (1992) (see Table 1).

It is interesting to note that 9 of the 10 major problems listed in this classification system list "behavioral mismanagement" as a sufficient, necessary, or contributory cause of the feeding problem. The term behavioral mismanagement was chosen to suggest that the behaviors in question are a result of a failure to teach the child a more appropriate and productive feeding pattern. It suggests that the feeding problem may be modified by environmental contingencies as opposed to medical or surgical treatments (Linscheid, 1992). The table also serves to illustrate the complexity of childhood feeding problems, and in doing so emphasizes the important need to consult with other specialists before beginning psychological or behavioral treatment for the feeding problem.

Pediatric Feeding Disorders - Clinical

Certain childhood feeding problems are more likely to be clinically referred
Table 1

Classification System

The Expanded Palmer, Thompson, and Linscheid Classification System for Childhood Feeding Problems

<table>
<thead>
<tr>
<th>Major Problems</th>
<th>Behavioral Mismanagement</th>
<th>Neuromotor Dysfunction</th>
<th>Mechanical Obstruction</th>
<th>Genetic Abnormalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mealtime tantrums</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bizarre food habits</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Multiple food dislikes</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prolonged subsistence on pureed foods</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Delay or difficulty in chewing, sucking, or swallowing</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delay in self-feeding</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Pica</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excessive overeating</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pronounced underintake of food</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Rumination</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Note: X = possible cause for each major problem
than others. For example, children with certain medical conditions or developmental disabilities display feeding problems that may be more likely to be referred to a psychologist for help in managing these problems than would a normally developing child with less severe feeding problems. Certain medical conditions inherently increase the risk of a child developing a feeding problem. A medical condition and its appropriate treatment can interact with normal development of feeding to produce a feeding problem (Linscheid et al., 1995). Such conditions include gastroesophageal reflux (GER), bronchopulmonary dysplasia, congenital cardiac conditions, cystic fibrosis, short-gut syndrome, and childhood cancers. The interruption of normal oral feeding paired with a history of physical discomfort during and following eating, increases the likelihood that these children will refuse or limit their oral food intake.

Behavioral interventions have been used in inpatient settings to induce oral feedings in children whose medical conditions necessitated feeding via artificial means, for example a gastrostomy tube (G-tube) or total parenteral nutrition (TPN). Blackmon and Nelson (1985) successfully treated 9 of 10 total food refusers (infant and toddlers) maintained on exclusive G-tube feedings utilizing a forced feeding approach. Lamm and Greer (1988) successfully taught 3 dysphagic infants to swallow using similar behavioral techniques. A treatment program utilizing forced feeding and operant procedures in treating food refusal and failure to thrive was developed by Iwata and colleagues (Iwata, Riordan, Wohl, & Finney, 1982; Riordan, Iwata, Wohl, & Finney, 1980). In general, forced feeding techniques are used only for severe feeding problems and only as a last resort because parents usually consider
such procedures unacceptable and extremely distressing (Puntis, Ritson, Holden, & Buick, 1990). Linscheid and colleagues have used strictly operant behavioral techniques to treat feeding problems in a developmentally disabled child (Linscheid, Oliver, Blyler, & Palmer, 1978), a child diagnosed with short-gut syndrome (Linscheid, Tarnowski, Rasnake, & Brams, 1987), and children diagnosed with failure to thrive (Linscheid & Rasnake, 1985). A sample behavioral treatment protocol for more severe, clinical feeding problems is presented in Appendix A. In addition to their increased use for feeding problems resulting from medical conditions, behavioral intervention strategies have a long history of being effective in addressing the feeding problems associated with the developmentally disabled and mentally retarded populations as well (see Ginsberg, 1988, for review).

Pediatric Feeding Problems--Subclinical

While clinical feeding problems have been extensively studied in children presenting with different medical conditions or developmental handicaps, little research has been conducted on sub-clinical feeding problems in typically developing children. This is interesting when one considers that the vast majority of eating problems in young children are the result of parents simply not knowing enough about how eating behaviors develop. Most pediatric eating problems are learned and do not develop from an organic problem in the child (O'Brien, Repp, Williams, & Christopherson, 1991). Prevalence rates of feeding problems in normally developing children (i.e., children without a medical condition or developmental disability) have been reported
to be between 30 and 45% (Bentovim, 1970). Although this prevalence rate may seem high, some researchers (Kedesdy & Budd, 1998; Linscheid, 1992) point out that it may actually underestimate the true population prevalence for two reasons. First, incident reports can only be based on cases where parents or guardians sought help. Many parents whose children are having problems in other areas will fail to report eating problems. As Christophersen (1994) points out, "The time honored tradition of asking parents if they have any mealtime problems assumes parents know how to identify such problems" (p. 173). Many children may engage in feeding behaviors that are behaviorally and/or socially problematic (i.e., such behaviors cause a significant amount of distress and disruption within the family) but still maintain adequate growth. Parents may become accustomed to judging their child's progress (as well as their own) by the results of the height and weight measurements taken at well child visits. If the child continues to grow at a normal rate, then the parent may be less likely to view or discuss the child's behavior as "problematic" because the child is growing "normally". This is especially true if the child's eating problems involve eating too much "junk food". The second problem arising from incidence or prevalence reports is that the data are gathered from mental health settings where the true (but unknown) prevalence of childhood feeding/eating problems may be hidden by the tendency to report more general diagnostic labels such as Oppositional Defiant Disorder (ODD). For the above reasons, it seems highly likely that these subclinical, or non-referred pediatric feeding problems, impact a significant number of families and deserve closer examination.
Selective eating appears to be a common and relatively persistent feeding concern of otherwise typically developing children. Selective eating is defined as self-restriction by type, texture, or amount of food available to the child. Self-restriction is used to distinguish that the child's selectivity is voluntary and is not attributed to factors outside the child's control (e.g., diet restrictions due to a medical condition, parental neglect, or developmental disability). Mild selectivity refers to common feeding problems often referred to by parents, physicians, and clinicians as "finicky eating", "picky eating", or "poor appetite". Children may place restrictions on the types of foods they will accept, display strong flavor preferences, be texture selective, or eat smaller portions than expected. "Picky Eating" and other common feeding problems are consistently reported in 20-50% of children during infancy and preschool years (Kedesdy & Budd, 1998).

Mild selectivity and associated feeding problems often are correlated with developmental stages and do not appear to have a significant impact on social, developmental, or health consequences. For this reason, mild selectivity is usually regarded as a sub-clinical feeding problem. However, the reported rates of feeding problems suggest that parents often experience feeding difficulties with young children. In addition, there is some evidence to suggest that feeding difficulties are correlated with other child management problems (Beautrais, Fergusson, & Shannon, 1982; Dahl & Sundelin, 1992), and that children displaying eating problems in early childhood are at increased risk of showing parallel problems in later childhood (Marchi & Cohen, 1990). Finally, a substantial number of first time parents have
questions about how to feed their child, what to expect at different developmental points, and how best to promote healthy eating in their child. Despite estimates of frequent occurrence, only 3% of mothers annually report seeking medical or other professional advice for these problems (Beautrais et al., 1982).

The high prevalence estimate of sub-clinical pediatric feeding problems combined with a low rate of reporting suggest that there is a need for preventive, educative, and supportive assistance for parents in the form of brief, effective, easily implemented interventions for managing common feeding problems. Table 2 provides an outline of different treatment protocols designed to help parents cope with mild feeding problems. Such assistance can take many forms but past efforts can be broadly categorized into three areas: anticipatory guidance, bibliographic materials, and parent training (Kedesdy & Budd, 1998). These three categories are described in more detail in the following sections.

Anticipatory Guidance

Anticipatory guidance refers to offering support and guidance in adaptive feeding practices. This often occurs during health care visits. Physicians typically offer recommendations about feeding practices especially for infants and toddlers (e.g., appropriate foods, serving sizes, methods to encourage food intake). While the logic for anticipatory guidance seems sound, the actual delivery of educational material during health care visits is limited by a number of factors. First, Reisinger and Bires (1980) found that the average well-child pediatric visit lasts approximately
### Table 2

**Mild Feeding Problems Protocols**

Treatment Protocols for Mild Food Selectivity and Other Minor Child Feeding Problems

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Date</th>
<th>Population</th>
<th>Common Steps Listed Below</th>
<th>Establish consistent meal schedule (C&amp;H, F, S, M, W)</th>
<th>Limit food/fluid intake between meals (C&amp;H, F, S, M, W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christopherson and Hall</td>
<td>1978</td>
<td>15-18 months and up</td>
<td>1. Establish reasonable, age appropriate rules.</td>
<td>2. Praise all appropriate behaviors whenever they occur.</td>
<td>3. Establish reasonable age appropriate meal time rules for child (start with 2-3 rules)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Establish reasonable age appropriate meal time rules for child</td>
<td>2. Limit fluid intake.</td>
<td>3. Limit meal length to 20 minutes.</td>
</tr>
<tr>
<td>Finney</td>
<td>1986</td>
<td>15-18 month health visits</td>
<td>1. Establish sitdown, family style meals.</td>
<td>2. Follow regular/predictable schedule for meals and snacks (3 meals/2 snacks; feeding every 2-3 hours)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Turn TV off.</td>
<td>2. Limit fluid intake.</td>
<td></td>
</tr>
<tr>
<td>Satter</td>
<td>1986, 1987</td>
<td>15-18 months and up</td>
<td>1. Observe division of hunger and responsibility. (structure meals)</td>
<td>2. Mealtime conversation should be positive and should include the children.</td>
<td></td>
</tr>
<tr>
<td>Macht</td>
<td>1990</td>
<td>Infants and Children</td>
<td>1. Establish sense of responsibility.</td>
<td>2. Limit fluid intake.</td>
<td></td>
</tr>
<tr>
<td>Wilkoff</td>
<td>1998</td>
<td>2-8 years</td>
<td>1. Eating is not to be discussed at or near meal time.</td>
<td>2. Mealtime conversation should be positive and should include the children.</td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>-------------------------</td>
<td>-------------</td>
<td>-------------------</td>
<td>------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Population</td>
<td>15-18 months and up</td>
<td>15-18 months and up</td>
<td>Infants and Children</td>
<td>2-8 years</td>
<td></td>
</tr>
</tbody>
</table>

- **Serve appropriately sized portions at meals (C&H, F, S, M, W)**
  - 4. Remind child of rules once before each meal until child has learned to follow them consistently.
  - 4. Hang loose on food acceptance. Allow child to explore and decide at their own pace.
  - 4. "First this, then this" rule.
  - 4. Stick to planned menu.

- **Establish age appropriate mealtime rules (C&H, F, S, M, W)**
  - 5. If rule is broken, remove the child from the table (time-out), then have the child practice the appropriate behavior when he/she returns.
  - 5. Give child small portions of food - an amount you are sure the child can eat (do not make your child clean his/her plate).
  - 5. Do not use dessert as a reward! Establishes dessert as "the reward" - bad habit.
  - 5. Establish age appropriate rules.
  - 5. Serve appropriately sized portions.

- **Use mild discipline for rule infractions (ignore misbehavior or time-out) (C&H, F, S, M, W)**
  - 6. Use time-out only twice during the meal.
  - 6. Use time-out only twice during the meal.
  - The third time, the meal is over for the child.
  - The third time, the meal is over for the child.
  - 6. Provide positive attention for appropriate child behavior.
  - 6. Don't short order the cook.
  - 6. All eating and drinking is to be done at the table or in high chair.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>1978</td>
<td>1986</td>
<td></td>
<td></td>
<td>1998</td>
</tr>
<tr>
<td>Population</td>
<td>15-18 months and up</td>
<td>15-18 months and up</td>
<td>Infants and Children</td>
<td>2-8 years</td>
<td></td>
</tr>
</tbody>
</table>

Create and maintain a pleasant atmosphere surrounding mealtimes (C&H, F, S, M, W)

- Ideally, have at least one meal everyday where the whole family is together (F, S, M, W)
- 7. Be realistic about amounts. Present favorite and not-so-favorites and the child will eat what she needs.

Ideally, have at least one meal everyday where the whole family is together (F, S, M, W)

<table>
<thead>
<tr>
<th></th>
<th>7. If child continues to misbehave, remove him/her from the table. Remove plate.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8. If the child breaks a rule, have the child practice the correct behavior. After the third infraction put the child in time-out.</td>
</tr>
<tr>
<td></td>
<td>8. Plan meals and snacks ahead and stick to menu.</td>
</tr>
<tr>
<td></td>
<td>8. Offer some preferred and non-preferred foods at each meal.</td>
</tr>
<tr>
<td></td>
<td>8. Limit fluid intake between snacks and meals.</td>
</tr>
<tr>
<td></td>
<td>9. Discipline whining or asking for snacks by placing child in time-out.</td>
</tr>
<tr>
<td>Include children in mealtime conversation by placing child in time-out.</td>
<td>9. When the time limit for the meal has expired, clear the table. &quot;One bite&quot; rule with the &quot;one taste&quot; rule.</td>
</tr>
<tr>
<td></td>
<td>9. Substitute the traditional &quot;one bite&quot; rule with the child.</td>
</tr>
<tr>
<td></td>
<td>9. Serve appropriate sized portions.</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Date</th>
<th>Population</th>
<th>Protocol Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christopherson and Hall</td>
<td>1978</td>
<td>15-18 months and up</td>
<td>Serve both preferred and non-preferred foods at each meal (S, M, W). Give child small portions.</td>
</tr>
<tr>
<td>Finney</td>
<td>1986</td>
<td>15-18 months health visits</td>
<td>10. If the child does not finish the meal, there is no dessert and nothing to eat or drink (except water) until the next meal.</td>
</tr>
<tr>
<td>Macht</td>
<td>1990</td>
<td>Infants and Children</td>
<td>10. Work through avoidance responses. End on a high note. (For more severe feeding problems).</td>
</tr>
<tr>
<td>Wilkoff</td>
<td>1998</td>
<td>2-8 years</td>
<td>10. The child may be asked to be excused at any time, but then the meal is over for the child (except for bathroom breaks).</td>
</tr>
</tbody>
</table>

Note: The numbers do not necessarily indicate that the protocols have a strict sequence of steps. They merely serve to indicate the different components of each protocol.
10 minutes. Of those 10 minutes, only 10% (1-minute) is devoted to anticipatory guidance issues (i.e., gross motor development, psychosocial development, child safety issues, etc.). On average, only 30 seconds of the average well-child pediatric visit is spent on feeding issues. Second, Pridham (1990) found that parents are hesitant to bring up problems or ask questions during these brief appointments, and some prefer to obtain childcare information from other methods (e.g., telephone, newsletters). It has yet to be shown whether anticipatory guidance reduces the likelihood of early childhood feeding problems.

Parent Training

Most research involving "hands-on" instructional parent training for child feeding problems has involved children with clinical feeding disorders (i.e., children were referred to professionals for help in managing feeding problems due to a medical condition, developmental disability or failure to thrive). The intervention procedures prescribed for clinical feeding problems, however, would seem to overlap considerably with those appropriate for use with sub-clinical feeding problems. The major difference between the two procedures may be the intensity and specific techniques used. In general, common feeding problems would be expected to respond to more "low key" or naturalistic strategies, such as providing nutritious, developmentally appropriate menus, arranging mealtime surroundings to support feeding, and providing a pleasant, social atmosphere during meals. More intrusive and/or extensive techniques such as negative reinforcement, punishment, forced feeding and extensive
desensitization procedures (sometimes indicated in clinical feeding disorders) would rarely be indicated or appropriate for children with mild selectivity, at least as a "first line" of treatment.

Bibliographic Materials

Anticipatory guidance during well-child visits may be supplemented with written materials. A number of written resources are available to inform parents about healthy feeding practices with children. Pamphlets outlining basic food groups, age appropriate serving sizes, and tips for increasing food attractiveness to children are published by the American Academy of Pediatrics, the American Dietetic Association, and food related organizations such as the Kellogg Company. Written feeding guidelines have been developed with the express purpose of supplementing health care provider's anticipatory guidance regarding feeding practices for children of different ages (Finney, 1986). More detailed information is available in a number of useful books devoted to childcare issues and nutrition. There are several books, designed especially for parents, exclusively devoted to the topic of feeding issues (e.g., Macht, 1990; Satter 1986, 1987; Wilkoff, 1998). When written by a health care provider, these self-help books seem to incorporate anticipatory guidance that would otherwise be delivered verbally in an office visit setting as well as additional supplementary information.

Given the wealth of written information available on common feeding problems, surprisingly little research has been done investigating parents' ability to apply
effectively the information to manage their own child's minor feeding problem. A couple of studies suggest that written material may be a viable and effective teaching tool for at least some parents. For example, McMahon and Forehand (1978) demonstrated systematic reductions in inappropriate mealtime behaviors at home of three preschool children after the parents received a 2 ½ page brochure. The brochure described how to use differential social attention and time-out to address the inappropriate mealtime behavior. In another investigation, bibliographic material was used to address inappropriate behavior while dining out at restaurants. A written advice package was effective in reducing children's (ages 3-8 years) crying, noncompliance, and other inappropriate behaviors and was effective in decreasing parents' disapproving statements during meals at restaurants (Bauman, Reiss, Rogers, & Bailey, 1983). The advice package included recommendations for structuring the dining environment and using parental attention to improve mealtime behavior. Both studies suggest that brief bibliographic interventions can successfully increase parents' skills in managing common mealtime issues. It has yet to be demonstrated that more lengthy bibliographic materials (i.e., self-help books) already available in the public domain will be sufficient with parents of children exhibiting mild selectivity.

The goal of the present study is to expand on the previous research conducted by McMahon and Forehand (1978) and Bauman et al. (1983) and extend the use of bibliographic interventions to children with mild selectivity.
METHOD

Subjects and Setting

Five families from a city in Southwest Michigan with children between the ages of 2-6 years and reporting problems with mild selectivity were recruited via posters and brochures distributed to pediatric offices, day care centers, and grocery stores in the city. Children with medical conditions that contribute to feeding problems (e.g., chronic illness, food allergies, recent illness, physical restrictions in swallowing), or that might put the child at risk should the family participate in the study (e.g., strict dietary requirements, low body weight) were excluded from participating in the study. In addition, the family's pediatrician agreed to serve as a medical consultant during the course of the study. Participating families agreed to have 4-5 sit-down family meals per week on an ongoing basis during the duration of the study. Participation was limited to one child per household. Parental reading level was assessed to ensure the parents could comprehend the instructions found within the book. This was accomplished by having the parent read a section of the book and answer 10 brief comprehension questions over what they had read. Subjects completing the study had the opportunity to receive free psychological services at the Western Michigan University Psychology Clinic at the conclusion of the study.

The dining area in each home served as the study setting. During baseline, parents were instructed to continue their normal meal routine. During the intervention
phase, parents were given the self-help book and asked to follow the instructions found within. Parents were asked to complete a daily food diary and weigh the evening meal of the targeted child for the duration of the study as described below.

Independent Variable

After completing their baseline data collection, subjects received a copy of Coping with a Picky Eater by William G. Wilkoff, M.D. (1998). This book was chosen for a number of reasons. First, it is relatively short and easy to read. Second, because it is written by a pediatrician, it provides much of the same anticipatory guidance information that pediatricians would likely provide to their own patients during well child exams. Third, it provided sample menus of balanced meals for children age 2-6 years old. Finally, it provided specific suggestions on structuring meal schedules, fostering a positive mealtime atmosphere, and dealing with problem behaviors at meals. Thus the book provides a little bit of everything in terms of the three areas of assistance often offered to parents of children with feeding problems (anticipatory guidance, bibliographic material, and parenting “tips”). A copy of the table of contents with brief chapter descriptions can be found in Table 3. After receiving the book, subjects were instructed to read the book, and “try some of the strategies that you feel best apply to your situation.” They were also asked to continue with the data collection (completing the food diary sheets and weighing the child's plate before and after the evening meal.
Table 3
Descriptive Overview of “Coping With a Picky Eater”

<table>
<thead>
<tr>
<th>Contents</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have you picked up the right book?</td>
<td>Overview of book and underlying philosophy</td>
</tr>
<tr>
<td>2. Before you read another word</td>
<td>Exclusion criteria, visit to pediatrician, explanation of pediatric growth measures, possible medical/emotional problems to rule out</td>
</tr>
<tr>
<td>3. A few ounces of prevention</td>
<td>Anticipatory guidance, steps for preventing “picky eating” before it starts</td>
</tr>
<tr>
<td>4. Not so great expectations</td>
<td>Dispelling common myths surrounding children and feeding</td>
</tr>
<tr>
<td>5. Not to worry</td>
<td>Addressing common parental worries</td>
</tr>
<tr>
<td>6. Getting ready to take the leap</td>
<td>Joining the client with a personal story of challenge and success</td>
</tr>
<tr>
<td>7. Assembling your support group</td>
<td>Enlisting the help of others in the social system, readdress common concerns</td>
</tr>
<tr>
<td>8. Do you need to change your parenting style</td>
<td>Description of permissive, authoritative, and authoritarian parenting styles; tips on applying the best style, tips for coming together as a parental unit</td>
</tr>
<tr>
<td>9. Everyone needs some rules</td>
<td>6 rules for parents, 6 rules for children</td>
</tr>
<tr>
<td>10. When the rules are challenged</td>
<td>Setting a good example (modeling), when and how to use time-out</td>
</tr>
<tr>
<td>11. If you push</td>
<td>The fear of god chapter; how pushing too hard can be emotionally and physically harmful to the child</td>
</tr>
<tr>
<td>12. Does your child have a drinking problem?</td>
<td>Dealing with unrestricted liquid intake from bottle, breast, juice, milk, etc.; encouraging water intake</td>
</tr>
<tr>
<td>13. Too much of a good thing</td>
<td>Snacking guidelines and tips</td>
</tr>
<tr>
<td>14. A banquet once a day</td>
<td>The argument for at least one family style dinner a day with no distractions and an emphasis on making this meal a special social occasion for the family</td>
</tr>
<tr>
<td>15. Just desserts</td>
<td>Why not to use dessert as a reward; dessert as another offering in the meal</td>
</tr>
<tr>
<td>16. So now what do you offer</td>
<td>Nutritional guidance; what and how much to serve how often</td>
</tr>
<tr>
<td>17. Getting down to basics</td>
<td>Basic meal planning</td>
</tr>
<tr>
<td>18. Suggested menus</td>
<td>Sample meals for breakfast, lunch, supper, and snack for two different age groups (1-3 years and 2-6 years)</td>
</tr>
<tr>
<td>19. Vitamins and other bad ideas</td>
<td>The soap box chapter; the case against nutritional supplements</td>
</tr>
</tbody>
</table>

Dependent Variables

*Feeding Diary-NP Index Score*: Parents received a binder full of blank daily progress report sheets (see Appendix B) on which they recorded a description of everything the child actually ate and drank throughout the day. Specifically, parents recorded the following information on the daily food diary sheets: a description of the food and drink items the child consumed, approximately how much of the item the child consumed, where and when the child consumed the food items, and whether that food item was preferred or non-preferred food item. The total number of portions (preferred and non-preferred portions) was calculated based on guidelines from Wilkoff (1998). (One solid portion was equivalent to 1 tablespoon for 1-3 year olds and 2 tablespoons for 3-6 year olds. One liquid portion was equivalent to 4 ounces for 1-3 year olds and 6 ounces for 3-6 year olds.) Then an NP index score was calculated by taking the number of non-preferred portions consumed during the day and dividing it by the total number of portions consumed during the day.

*Evening Meal Consumption*: As noted above, parents were asked to weigh the child's plate, glass, utensils, and food before and after the meal using an electronic scale accurate to an eighth of an ounce. From this information, the total ounces consumed during the evening meal was calculated and a comparison of consumption levels before and after the intervention was conducted.

*Feeding Assessment Form*: During the initial meeting, parents completed the Feeding Assessment Form (FAF; MacDonald and Harris, 1990) (see Appendix C). This form was adapted from a feeding problem questionnaire written by Guest and
Kelly at the University of Nebraska Medical Center, Omaha. Reliability and validity data were not available for this instrument. The assessment form consists of 30 questions designed to give information on a variety of categories relevant to the child's feeding problems including type of foods refused, usual meal times, typical meal menus, typical disruptive behaviors, and parental stress. Parents completed this form again once the study was completed. The experimenter then conducted an item-by-item analysis comparing the pre-FAF and post-FAF. If an item on the post-FAF changed in the expected direction by three degrees or more it was rated as “better”, if it changed in the expected direction by 1 or 2 degrees it was rated as “somewhat better”. Likewise, if an item changed in the opposite direction of what was expected by three or more degrees it was rated as “worse”, if it changed in the opposite direction by 1 or 2 degrees it was rated as “somewhat worse”. Unchanged items were also noted.

*Children's Eating Behavior Inventory (CEBI):* The CEBI (Archer, Rosenbaum, & Streiner, 1991) is a 40-item measure used as a screening tool for children's eating and mealtime problems (see Appendix D). For this study, the CEBI was used as a general outcome measure. The CEBI provides a parental report of the type and severity of the feeding problem while also providing information on the degree of stress to the caretaker. The CEBI yields two scores - an intensity score and a problem score. The instrument has shown acceptable test-retest reliability (correlation coefficient = .87 for total eating problem intensity score and r=.84 for the percentage of items perceived to be a problem), adequate internal consistency (Cronbach's Alpha =
.76 for two parents with two or more children, .71 for two parents with one child, .76 for single parent with one child, and .58 for single parent with 2 or more children), and adequate construct validity.

Satisfaction Survey: A brief 5 question satisfaction survey was completed by the parent at the conclusion of the study as a rough gauge of social validity (see Appendix E). Questions include: Did you find the book helpful? What tips and strategies were most/least helpful? Would you recommend this book to a close friend or family member? What suggestions do you have to make the book more helpful to parents like you?

Recruitment

Advertisement for the study was first posted in a local pediatric practice. In addition, researchers met with the medical staff at the location to provide an overview of the study and solicit their cooperation in recruiting parents they felt might benefit from the intervention. Brochures that described the study and provided contact information were given to the medical staff to be distributed to families who met criteria for the study. Parents were instructed to call the Behavioral Pediatrics Laboratory (the number was listed in the brochure) for more information about the study.

General Procedure

Subjects contacted the Behavioral Pediatrics Laboratory and expressed interest in participating in the study. An initial meeting was scheduled where the researcher
reviewed the process and procedures for the study, obtained consent, and had the subject complete the pre-intervention measures (CEBI and FAF). The researcher then demonstrated the use of the equipment and reviewed the step-by-step instructions for the equipment and the food diary with the parent. Completed diary sheets were collected by the researcher and assistants at times arranged in collaboration with the subjects.

A second meeting was scheduled based on baseline data and/or pre-established phase changes. At the second meeting, the researcher provided the subject with new daily diary sheets (structurally similar to baseline data sheets but a different color) and the self-help book. The researcher asked the subject to “review the book in the next couple of days, and begin using some of the suggestions from the book on day three”. In addition, the subject was instructed to begin using the new daily diary sheets on day three when she began using the suggestions from the book.

A final meeting was scheduled after day 20 of data collection. At this meeting, the subject returned the equipment, completed post-test measures (CEBI and FAF) and a satisfaction survey. (Note: In two cases, the satisfaction survey was administered over the phone after this final meeting due to administrative errors by the researcher.)

Experimental Design

Two individual AB and one multiple baseline across subjects designs were used. During baseline, parents were instructed to continue with their normal routine.
The self-help book was given to the parents two days before the intervention was to take place with the instructions, "Take the next two days to read through this book. On the third day, begin to use some of the tips and strategies described in the book that you think best apply to your child and your situation." No specific instructions outside those contained in the self-help book were given during the intervention phase. Parents were responsible for data collection during both phases of the study.
RESULTS

Despite distributing over 75 brochures and hanging multiple “pull tab” posters in a 7-month period, none of the patients from this pediatric practice contacted us to participate in the study. The five subjects participating in the study were recruited from posters at local day care settings and via word of mouth. The identified “picky eaters” in the subject families were all males age 2-6 years old. Two of the subject families were single parent households and three were two parent households.

Subject 001: (Caucasian male, 2 years-2 months, single parent household). Figure 1 for subject 001 indicates a baseline mean NP index score of .085 (range=.00-.17) and an intervention index score of .128 (.00-.22). While there is an increasing trend in the index scores during baseline, the intervention trend shows a sharper increase. The mean number of ounces consumed at the evening meal during baseline was 3.458 oz. (1.25-7.25 oz.) compared to a mean of 5.37 oz. during intervention. There is a noticeable increasing trend in consumption during baseline compared to the almost flat trend in consumption during intervention. The pre-CEBI score shows an intensity score of 87 and a problem score of 15. Post-CEBI scores were 83 and 16 respectively though it should be noted that two items were omitted on the post-CEBI (Table 4). Seven items on the post-FAF were rated as “better” by the experimenter. Ten items were “slightly better”, 20 unchanged, and two “slightly worse”. No FAF items were rated as “worse” on post-test (Table 5). The parent reported she would recommend the book to a friend or family member (more detailed comments can be
Figure 1. Subject 001--NP Index, Evening Meal Consumption, Total Daily Portions.
Table 4

Child Eating Behavior Inventory (CEBI) Results

<table>
<thead>
<tr>
<th>CEBI</th>
<th>Pre-Test Scores</th>
<th>Post-Test Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intensity</td>
<td>Problem</td>
</tr>
<tr>
<td>001</td>
<td>87</td>
<td>15</td>
</tr>
<tr>
<td>002</td>
<td>123</td>
<td>20</td>
</tr>
<tr>
<td>003</td>
<td>89</td>
<td>3</td>
</tr>
<tr>
<td>004</td>
<td>101</td>
<td>15</td>
</tr>
<tr>
<td>005</td>
<td>108</td>
<td>13</td>
</tr>
<tr>
<td>Avg.</td>
<td>101.6</td>
<td>13.2</td>
</tr>
</tbody>
</table>

*Note: Subject 001 did not respond to two items at post-test.

Table 5

Feeding Assessment Form (FAF) Changes

<table>
<thead>
<tr>
<th>FAF Changes</th>
<th>(+3 more)</th>
<th>(+1 or 2)</th>
<th>No Change</th>
<th>(-1 or 2)</th>
<th>(-3 more)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>Better</td>
<td>S. Better</td>
<td>N.C.</td>
<td>S. Worse</td>
<td>Worse</td>
</tr>
<tr>
<td>001</td>
<td>7</td>
<td>10</td>
<td>20</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>002</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>003</td>
<td>2</td>
<td>11</td>
<td>21</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>004</td>
<td>3</td>
<td>13</td>
<td>23</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>005</td>
<td>3</td>
<td>11</td>
<td>24</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Avg.</td>
<td>3.75</td>
<td>11.25</td>
<td>22</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

found in Appendix F).

Subject 002: (Caucasian male, 2 years-1 month, single-parent household). Figure 2 for subject 002 shows the mean NP index score during baseline was .23 (.00-.42) with a sharply increasing trend in baseline NP index scores. The subject dropped out of the study before intervention data could be collected. CEBI intensity and problem scores prior to intervention were 123 and 20 respectively (Table 4).
Figure 2. Subject 002--NP Index, Evening Meal Consumption, Total Daily Portions.
Subject 003: (Caucasian male, 2 years-0 months, two-parent household). 

Figure 3 for subject 003 shows the mean NP index score during baseline was .21 (.07-.48) whereas the mean NP index score during intervention was .11 (.00-.25). There is a sharp decrease in NP index scores during baseline with a more gradual decrease in NP index scores during intervention. The mean number of ounces consumed during baseline was 3.25 oz. (0.00-6.00 oz.) compared to 3.17 oz. (1.00-4.75 oz.) during intervention. An increasing trend is noticeable during baseline while the intervention phase is best characterized by a slightly decreasing trend. The pre-CEBI intensity score was 89 and the problem score was 3. At post-test the CEBI intensity score was 101 and the problem score was 2 (Table 4). The post-FAF results indicate two items as “better”, 11 items as “slightly better”, 21 items rated as no change, five items as “slightly worse” and zero items as “worse” (Table 5). The parent reported she would recommend the book to a friend or family member (more detailed comments can be found in Appendix F).

Subject 004: (Caucasian male, 4 years-9 months, two-parent household). 

Figure 4 for subject 004 reveals the mean NP index score during baseline was .03 (.00-.13) compared to a mean of .03 (.00-.08) during intervention. There is a slight increasing trend in the NP index scores during baseline with a sharper increasing trend noticeable during intervention. The mean ounces consumed at the evening meal during baseline was 10.2 oz. (7.25-12.25 oz.) while the intervention mean was 9.43 oz. (3.75-14.5 oz.). While an increasing trend in consumption is apparent during baseline, the intervention phase is best characterized by a decreasing trend in
Subject 003

NP Index, Evening Meal Consumption, Total Portions Consumed

Figure 3. Subject 003--NP Index, Evening Meal Consumption, Total Daily Portions.
Subject 004

NP Index, Evening Meal Consumption, Total Portions Consumed

Figure 4. Subject 004--NP Index, Evening Meal Consumption, Total Daily Portions.
consumption. Pre-CEBI intensity score was 101 and the problem score was 15. At post-test the intensity score was 88 and the problem score was 1 (Table 4). FAF analysis indicated that three items were “better”, 13 “slightly better”, 23 demonstrated no change, zero were “slightly worse”, and zero were “worse” at post-test (Table 5). The parent reported she would recommend the book to a friend or family member (more detailed comments can be found in Appendix F).

Subject 005: (Caucasian male, 6 years-11 months, two-parent household). Figure 5 for subject 005 shows the mean NP index score during baseline was .006 (.00-.02) while the intervention mean was .032 (.00-.14). A decreasing trend in NP index scores is apparent during baseline and intervention phases. The mean ounces consumed during baseline is 14.976 oz. (10.63-22.75 oz.) compared to a mean of 13.07 oz. (5.5-37.0 oz.) during intervention. While there is an increasing trend in ounces consumed during baseline, a decreasing trend characterizes the data in the intervention phase. Pre-CEBI intensity and problem scores were 108 and 13 respectively, and the post-test results were 98 and 9 respectively (Table 4). FAF analysis indicated that three items were “better”, 11 “slightly better”, 24 did not change, one “slightly worse”, and zero were “worse” at post-test (Table 5). The parent reported she would recommend the book to a friend or family member (more detailed comments can be found in Appendix F).
Figure 5. Subject 005--NP Index, Evening Meal Consumption, Total Daily Portions.
DISCUSSION

Consistent with past research (see Alessi, 1988, pp.15-18, for an overview), there is little correspondence between the symptomatic and sign data collected. If one evaluates the effectiveness of the intervention purely on the basis of symptom reports (i.e., through the results of the CEBI and FAF combined) then one concludes that subjects 004 and 005 improved after intervention, subject 003 grew worse, and subject 001 showed no change. However, evaluation of effectiveness based on sign data collected (i.e., consumption data from daily feeding diaries) provides a very different picture. Based on the sign data results, one would conclude that only one subject (subject 001) showed a clear change (in terms of a change in level, mean, and trend) in NP index scores after the intervention was introduced.

While the other subjects demonstrated some positive changes after the intervention, this was accompanied by some iatrogenic effects as well. For example, Figure 3 for subject 003 shows an initial change in level of NP index scores, but the overall mean NP index score fell during intervention and the there continued to be a decreasing trend in NP scores during the intervention phase. Figure 4 for Subject 004 shows a sharper rising trend during intervention but there is no change in the mean NP index score between baseline and intervention phases, and the initial NP score level dropped after the intervention was introduced. Figure 5 for subject 005 shows a clear and dramatic change in NP score level at intervention (which is largely responsible for an increase in mean NP score during the intervention phase). However, the
downward trend in NP scores evident at baseline continued during the intervention phase with most of the data points falling below the baseline mean. In addition, Figures 3, 4 and 5 for subjects 003, 004, and 005 respectively show a decrease in mean Total Portions Consumed Daily between the baseline and intervention phase (the intervention trend is clearly rising for 003 while it is relatively stable for 004 and 005).

It is unclear what variables are controlling the parental responses on symptomatic reports, but the net consumption of non-preferred food items or the total proportions of food consumed daily by the “picky eater” do not appear to be the crucial controlling variables. The results of this study would suggest that practitioners evaluating the effectiveness of interventions on “picky eating” behaviors would be wise to incorporate both sign and symptom data in their evaluation. Also, the sign data collected here would appear to have much more treatment utility in guiding intervention. The self-help book appears to have been an effective catalyst for parents to “try something different”—though it is unclear exactly what that was for each family. The astute practitioner armed with sign data could punctuate certain changes in the data to bring about therapeutic change. Slight changes in level, mean, or trends could be used as jumping off points of discussion as to what was different during those days. Practitioners could then reinforce small changes in parental behaviors and highlight small gains in order to shape more adaptive parental behaviors that would allow more adaptive child feeding behaviors to take root and grow. Such teachable moments may be lost, however, if there is a long delay between the collection and evaluation of the
data. Most subjects in this study were unable to maintain subtle positive behavior changes for longer than a few days to a week.

On a larger level, the results of this study seem to be relevant to the distinction between problems and complaints. Problems are those things a person is troubled enough by to invest time and energy in taking action to change. Complaints on the other hand or those things a person is annoyed by but is not so troubled as to invest a significant amount of time and energy in taking action to change. It would appear based on the high prevalence rate of “picky eating” reported (and estimated) in the literature - gathered predominantly by the symptomatic reports of parents - that “picky eating” is a very popular complaint amongst parents. However, the difficulty experienced in recruiting subjects for this study (despite having actively recruited through a medical setting) would suggest that “picky eating” is not seen as a serious problem by many parents complaining about their child's “picky eating” at least in this Southwest Michigan community. For many parents, treating the “picky eater” may not be worth the hassle.

There is some reason to be more concerned about “picky eating”, however. As previously noted, research has demonstrated that children who are described as “picky eaters” are at greater risk of developing more generalized non-compliant, anti-social behaviors and conduct problems later in life. It may be the case that early battles between the “picky eater” and his/her parents surrounding food establish or expand what Malott, Malott, and Trojan (2000) have referred to as a “sick social cycle” of interaction between the child and the parents. In this sick social cycle, each
party's behavior is negatively reinforced by the other party's behavior. The termination of the tantrum is positively reinforced by receiving the preferred foods and/or negatively reinforced by the withdrawal of the demand to eat the non-preferred foods. The acquiescence of the parents to the child's temper tantrum is negatively reinforced by the withdrawal of the aversive situation created by the child's tantrum. Over time, this sick social cycle style of interaction may expand to other areas of parent-child interactions and move from an exclusively escape based model (Figure 6) to include a punishment based model (Figure 7). These sick social cycles are very similar to—if not components of—what Patterson (1982) has described as coercive family processes. “These . . . interpersonal contingencies may be core etiological factors (pathognomonic signs) responsible for a variety of conduct and oppositional behavior problems” (Alessi, 1988, pp.27-28).

The variability in results achieved in this study is most likely a result of the non-prescriptive nature of the treatment administered and the complex functional relationships maintaining the problem behavior. The self-help book used in the study provided a number of different tips and strategies in an “everything but the kitchen sink” approach to addressing the problem, and still most subjects were unable to maintain significant changes in their child's eating behavior. But this should not be too surprising. It is unlikely that a parent (or physician for that matter) with no formal training in behavioral disorders can appreciate the inherent complexities of even a perceived simple behavioral complaint such as “picky eating” let alone properly assess, diagnose, and treat the problem. A quick overview of possible controlling
The Generic Sick Social Cycle
Victim's Escape Model

![Diagram of the Generic Sick Social Cycle](image)


Figure 6. Victim's Escape Model.
The Generic Sick Social Cycle
Victim's Punishment Model


Figure 7. Victim's Punishment Model.
variables should reveal why this is the case.

A child who is labeled as being a “picky eater” may not ingest non-preferred foods. This may be because non-preferred foods are never offered, compete with more preferred foods which are always available with no restrictions, or the child has never experienced a state of hunger in the presence of non-preferred foods and had the ingestion of non-preferred foods alleviate that hunger. Frequently, parents may preemptively inform the child that he/she probably will not like a certain food item thereby setting themselves up for food refusal. Lack of consistency in mealtime structure or behavior management may lead to poor internal (e.g., hunger cues) and external (e.g., time, place, people) stimulus control for appropriate mealtime behavior. In other words, it is quite obvious that the functional antecedents surrounding feeding and eating influence the functional eating behaviors exhibited by the child.

Along with being influenced by functional antecedents the “picky eater's” behavior is influenced by the functional consequences of that behavior. Many parents, while intuitively understanding the role of contingencies in establishing and maintaining behavior, have a difficult time putting this understanding into daily practice. For example, one of the more powerful (and externally valid) suggestions found in the self-help book is the suggestion to make access to more preferred foods contingent upon eating some non-preferred foods. Yet none of the parents in the study reported using this particular strategy, though some attempted to apply a component piece of serving smaller portions.

Along with basic A-B-C micro-contingencies, behaviors like “picky eating”
are embedded in social situations where sequential interactions and systemic macro- and meta-contingencies influence behaviors (Alessi, 1988 pp.19-34). Parents may, in effect, be coaching their children to be non-compliant (often at the advice of well meaning “helpers” such as grandparents, extended family, physicians, and psychologists that advise them to “relax”, “don't push too hard”, “let them develop their tastes at their own pace”, and “they will grow out of it”). For families whose mealtime struggles have become monumental and very aversive to everyone involved, any new food might be shunned due to its association with the external and internal turmoil being experienced or function to evoke that turmoil. In severe cases, the escalating demand-avoidance-escape-termination sequences may result in the child becoming physically sick or the parent momentarily losing control and possibly hurting the child. It is clear that even a behavior as apparently straightforward and simple as “picky eating” is the result of a myriad of internal and external controlling variables and complex embedded contingencies. Failure to appreciate this complexity can result in well meaning treatments and advice that at best may be effective once in a while, ineffective most of the time, and iatrogenic in a number of cases.
CONCLUSION

Results of this study would seem to support Rosen's (1979) cautionary statement concerning non-prescriptive self-help protocols. The self-help book evaluated in this study can be found in any bookstore, grocery store, or convenience store in the country and represents just one small fraction of the millions of self-help "pop psychology" books available to the general public. Though some of the information provided in some of these books and treatment manuals may be technically accurate and based on good science, that alone does not guarantee that the information will be applied strategically or prescriptively. There is a big difference between knowing the procedures to follow for a particular surgery, and being able to competently perform that surgery. By following George Miller's famous call to give psychology away, psychologist may be doing more harm than good both to those we want to serve and to the practice and science of psychology as a whole. This quote by APA Executive Director for Science, Dr. Kurt Salzinger, from an article entitled "Take Back Psychology" in the April 2002 APA Monitor makes the point particularly well (if not a little dramatically):

No self-respecting physicist or biologist has ever enjoined colleagues to give away their science, neither would any layperson accept such a gift. Such gifts are akin to giving a young child a loaded gun to play with. They are prone to yield disaster. If we did not know that in George Miller's time, we know it now. If we wish to encourage the use of psychology in world affairs, then we must be there to apply it. We should not give it away; we should show everyone how we use it. But making it popular is not the same thing as having lay people try to apply it. Let's describe how principles of psychology work; let's show how such principles can be applied. Let's describe psychology as best
we can so that laypeople will come to us to ask for our help, but let us not transfer such dangerous tools to people who cannot handle them. (p. 48)
Appendix A

Sample Clinical Feeding Protocol
Sample Clinical Feeding Protocol

Sample Behavioral Protocol for Re-establishing Oral Feeding After Prolonged Tube Feeding

The following recommendations are based on available treatment literature (Blackman and Nelson, 1985; Evans-Morris and Klein, 1987; Evans-Morris, 1989; Handen, et al, 1986; Illingworth, 1969; Macht, 1990) and adapted from Wolke and Skuse (1992)

General Prevention (Support for rudimentary oral-motor skills)
Whenever tube feeding is necessary for a long period the following steps should be taken:
1. Concurrent oral-motor therapy should be provided by a qualified specialist
2. Attention should be paid to potential oral hypersensitivity that may result from aversive conditioning to associated unpleasant oral experiences (e.g. hygiene, suctioning, and associated

Status review: Are the conditions for re-establishing oral feeding met?
1. The child's medical condition leading to tube feeding has been corrected.
2. The child's nutritional status has been stabilized.
3. No serious anatomic or functional impediment to swallowing is present.
4. The child is functioning at an adequate developmental level to benefit from behavioral treatment aimed at introducing solid food.
5. The child's caregivers are sufficiently stable, prepared, and committed to maintaining oral feeding once established.

Preparation Stage
1. The professionals involved are relaxed and confident in order to prepare the child and caregivers for the difficult treatment period.
2. The tube or gastrostomy feeding schedule should approximate a normal diurnal pattern (i.e. only 3-5 feedings should be administered in a 24 hour period and these feedings should occur when normal family meals take place).
3. The duration of the feeds should be increased to 20-30 minutes.
4. Standard formula or a liquidized and diluted normal meal should be used for gastrostomy tube feeds.
5. A small number of professionals should supervise the feeds and begin to build the caregivers' confidence that the child will eventually eat orally.

Treatment Stage
Young children who have been fed non-orally for many months will find oral stimulation, by taste or texture, unpleasant. The first goal is to overcome resistance to oral stimulation (escape avoidance behaviors). The second goal is to encourage the child
1. Develop a hierarchy of problems to be addressed first those functions that should be facilitated first (see Macht, 1990 for excellent case examples).
2. Build an association between feelings of hunger, oral feeding, and satiation by shaping the child's eating behavior through positive reinforcement and ignoring undesirable behavior.
3. Create a positive, relaxed environment.
4. Provide good positioning and support for the child during feeding.
5. Model appropriate eating behavior (e.g. encourage parents and siblings to eat with the child).
6. Use successive approximation both in getting the child to taste and swallow the food, and also by thickening food very slowly over a period of days.
7. Support and encourage the parents in persisting with oral feeding as the progress may be slow and difficult.
8. Utilize forced feeding techniques (Blackman and Nelson, 1985) only as a last resort. Parents usually consider forced feeding unacceptable and extremely distressing (Puntis et al, 1990). It may exacerbate food refusal by leading to a conditioned association between oral feeding and an aversive situation.
Appendix B

Daily Progress Report
Coping with a Picky Eater - Study

Daily Progress Report

<table>
<thead>
<tr>
<th>Date:</th>
<th>Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Portions</th>
<th>Total Portions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Total tablespoons of non-preferred: |
| Total tablespoons of preferred:    |
| Start Weight (plate+food):         |
| Total ounces of non-preferred:     |
| Total ounces of preferred:         |
| Finish Weight (plate+food):        |

Reminder: Start and Finish Weight apply to the evening meal (dinner or supper) only!

<table>
<thead>
<tr>
<th>FOOD</th>
<th>DIARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meal 1</td>
<td></td>
</tr>
<tr>
<td>a.m.</td>
<td>a.m.</td>
</tr>
<tr>
<td>p.m.</td>
<td>p.m.</td>
</tr>
<tr>
<td>Meal 2</td>
<td></td>
</tr>
<tr>
<td>a.m.</td>
<td>a.m.</td>
</tr>
<tr>
<td>p.m.</td>
<td>p.m.</td>
</tr>
<tr>
<td>Meal 3</td>
<td></td>
</tr>
<tr>
<td>a.m.</td>
<td>a.m.</td>
</tr>
<tr>
<td>p.m.</td>
<td>p.m.</td>
</tr>
<tr>
<td>Meal 4</td>
<td></td>
</tr>
<tr>
<td>a.m.</td>
<td>a.m.</td>
</tr>
<tr>
<td>p.m.</td>
<td>p.m.</td>
</tr>
<tr>
<td>Meal 5</td>
<td></td>
</tr>
<tr>
<td>a.m.</td>
<td>a.m.</td>
</tr>
<tr>
<td>p.m.</td>
<td>p.m.</td>
</tr>
<tr>
<td>Meal 6</td>
<td></td>
</tr>
<tr>
<td>a.m.</td>
<td>a.m.</td>
</tr>
<tr>
<td>p.m.</td>
<td>p.m.</td>
</tr>
<tr>
<td>Meal 7</td>
<td></td>
</tr>
<tr>
<td>a.m.</td>
<td>a.m.</td>
</tr>
<tr>
<td>p.m.</td>
<td>p.m.</td>
</tr>
<tr>
<td>Meal 8</td>
<td></td>
</tr>
<tr>
<td>a.m.</td>
<td>a.m.</td>
</tr>
<tr>
<td>p.m.</td>
<td>p.m.</td>
</tr>
<tr>
<td>Meal 9</td>
<td></td>
</tr>
<tr>
<td>a.m.</td>
<td>a.m.</td>
</tr>
<tr>
<td>p.m.</td>
<td>p.m.</td>
</tr>
<tr>
<td>Meal 10</td>
<td></td>
</tr>
<tr>
<td>a.m.</td>
<td>a.m.</td>
</tr>
<tr>
<td>p.m.</td>
<td>p.m.</td>
</tr>
<tr>
<td>Meal 11</td>
<td></td>
</tr>
<tr>
<td>a.m.</td>
<td>a.m.</td>
</tr>
<tr>
<td>p.m.</td>
<td>p.m.</td>
</tr>
<tr>
<td>Meal 12</td>
<td></td>
</tr>
<tr>
<td>a.m.</td>
<td>a.m.</td>
</tr>
<tr>
<td>p.m.</td>
<td>p.m.</td>
</tr>
</tbody>
</table>

Notes

Second's Weight:
Appendix C

Feeding Assessment Form
Feeding Assessment Form

Child’s Name: 
Completed by (relationship): 

Child’s Date of Birth: 
Date Completed: 

1. What problem is your child having? 
   a.) Has poor appetite 
   b.) Eats a limited variety of foods 
   c.) Prefers drinks rather than solid foods 
   d.) Is slow to eat 
   e.) Cannot chew food 
   f.) Other, please specify

2. Does your child have any of the following problems? 
   a.) vomiting 
   b.) constipation 
   c.) diarrhea 
   d.) abdominal pain 
   e.) colic

3. Feeding position at home? 
   □ Lap 
   □ Baby Bouncer 
   □ High chair 
   □ Table/chair 
   □ TV tray/armchair 
   □ Standing 
   □ Bed/Cot 
   □ Other, please specify

4. In what room do you feed your child? 
   □ Living Room 
   □ Dining Room 
   □ Kitchen 
   □ Playroom 
   □ Bedroom 
   □ Other, please specify

5. Who mainly feeds the child or supervises feeding of the child? 
   □ Mother 
   □ Father 
   □ Grandparent 
   □ Brother/Sister 
   □ Other extended family (aunt, uncle, etc.) 
   □ Friend 
   □ Home Helper 
   □ Child Care (daycare, sitter) 
   □ Other, please specify

6. With whom does the child usually eat? 
   □ Mother 
   □ Father 
   □ Brothers/Sisters 
   □ All immediate family 
   □ By self 
   □ Child’s friends 
   □ Neighbor 
   □ Grandparents 
   □ Other extended family 
   □ Other, please specify

This feeding assessment form is adapted from a feeding problem questionnaire originally written by Jean Guest and Dr. D. Kelly at the University of Nebraska Medical Center, Omaha, Nebraska and later adapted to a feeding assessment form by MacDonald and Harris (1990).
7. What are the usual times for (a) meals and (b) drinks?

Breakfast
Mid-morning snack
Midday meal
Mid afternoon snack
Evening meal
Bedtime snack

8. Are feeding times: (put a mark on the scale showing how you feel)
   a.) Relaxed
   0 1 2 3 4 5 6 7 8 9 10
   Stressful
   b.) Noisy
   0 1 2 3 4 5 6 7 8 9 10
   Quiet
   c.) Unrushed
   0 1 2 3 4 5 6 7 8 9 10
   Hectic
   d.) Tearful for parents
   0 1 2 3 4 5 6 7 8 9 10
   Happy for parents
   e.) Tearful for child
   0 1 2 3 4 5 6 7 8 9 10
   Happy for child

9. Is your child’s appetite:
   Poor
   0 1 2 3 4 5 6 7 8 9 10
   Good

10. Do you think that your child eats enough?
    No
    0 1 2 3 4 5 6 7 8 9 10
    Yes

11. Do you think your child is difficult to feed?
    No
    0 1 2 3 4 5 6 7 8 9 10
    Yes

This feeding assessment form is adapted from a feeding problem questionnaire originally written by Jean Guest and Dr. D. Kelly at the University of Nebraska Medical Center, Omaha, Nebraska and later adapted to a feeding assessment form by MacDonald and Harris (1990).
12. Would your spouse agree with your ratings above on the 1-10 scales?
   No (0% agree)                                             Yes (100% agree)

0 1 2 3 4 5 6 7 8 9 10

   • Put a second set of marks on the above scales for how you believe your spouse would answer.

Feeding Behavior and Appetite

13. Does the amount of food taken by your child fluctuate from day to day?
   Yes
   No
   Sometimes
   Don’t know

14. Does your child accept certain foods one day but reject them on another day?
   Yes
   No
   Sometimes
   Don’t know

15. Does your child accept new foods?
   Yes
   No
   Sometimes
   Don’t know

16. Please indicate the average duration of time for your child to eat the evening meal.
   □ 0-10 minutes
   □ 10-20 minutes
   □ 20-30 minutes
   □ 30-60 minutes
   □ over 60 minutes

17. Please indicate the average duration of time for your child to eat snack.
   □ 0-10 minutes
   □ 10-20 minutes
   □ 20-30 minutes
   □ 30-60 minutes
   □ over 60 minutes

18. Does your child exhibit any of the following when given food?

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
<th>If yes, how often</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Each Meal</td>
</tr>
<tr>
<td>a.) Throws food/pushes food away</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.) Spits food</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c.) Chews, but will not swallow food</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d.) Turns head away repeatedly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e.) Closes mouth when offered food</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f.) Knocks spoon away</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g.) Cries/screams at the beginning of the feeding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h.) Cries/screams at the end of the feeding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i.) Vomits after or during meal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j.) Dribbles food out of mouth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>k.) Repeatedly leaves the table during feeding</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This feeding assessment form is adapted from a feeding problem questionnaire originally written by Jean Guest and Dr. D. Kelly at the University of Nebraska Medical Center, Omaha, Nebraska and later adapted to a feeding assessment form by MacDonald and Harris (1990).
19. If your child does not finish part of the meal, what do you do?
- Take it away
- Attempt to make the child eat the food
- Distract the child to eat food
- Offer the next course of the meal
- Offer the child a reward for eating

20. If your child is a messy eater, does it bother you?
- Yes
- No
- Don’t know
- Doesn’t apply to my child

21. How many people does it take to feed the child?
- Child feeds self
- One
- Two
- Three
- More (specify how many)

22. Do you need to distract your child when eating?
- Yes
- No

If yes, please specify the type of distraction you use
- Television
- Toys
- Reading
- Singing
- Feeding games such as airplane
- Other children playing
- Other, please specify

23. What type of food offered to your child?

<table>
<thead>
<tr>
<th>Stage 1 baby food</th>
<th>Adult puree food</th>
<th>Stage 2 baby food</th>
<th>Adult mashed food</th>
<th>Finger foods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does Eat</td>
<td>Can Eat</td>
<td>Never tried</td>
<td>Can't/Won't Eat</td>
<td>What happens when the child refuses?</td>
</tr>
<tr>
<td>Fluids only</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

24. Child’s current feeding skills
- Spoon fed by parent
- Finger fed by parent
- Feeds self with fingers
- Feeds self with spoon
- Feeds self with fork
- Uses knife
- Drinks from bottle
- Drinks from cup/glass
- Drinks from straw
- Pours own drink
- Prepares own snacks
- Child has never self-fed
- Other, please specify

This feeding assessment form is adapted from a feeding problem questionnaire originally written by Jean Guest and Dr. D. Kelly at the University of Nebraska Medical Center, Omaha, Nebraska and later adapted to a feeding assessment form by MacDonald and Harris (1990).
25. Which of the following foods are currently refused?

- Meats
- Fish
- Eggs
- Cheese
- Milk
- Yogurt
- Sweets/Chocolates
- Soups
- Vegetables
- Potatoes/rice/spaghetti
- Bread
- Breakfast cereals (hot and cold)
- Fruits
- Puddings
- Crackers
- Squash
- Sour foods like lemonade

State reason for refusal of above foods:

26. Child’s reaction to temperature:

- Hot food likes dislikes
- Cold food likes dislikes
- Warm food likes dislikes
- Frozen food likes dislikes (ice cream, etc.)

27. Child’s reaction to flavor:

- Sour likes dislikes
- Salty likes dislikes
- Sweet likes dislikes
- Bitter likes dislikes
- Highly flavored likes dislikes

28. Food intolerance (please list those foods your child cannot tolerate)

29. Vitamin supplements (please list all vitamin, mineral, and/or herbal supplements your child currently takes)

30. Dietary supplements (please list specific dietary supplements your child is currently taking – e.g. Pediasure, Pedialyte, Ensure, etc.)

<table>
<thead>
<tr>
<th>Name of Supplement</th>
<th>Quantity per day</th>
</tr>
</thead>
</table>

This feeding assessment form is adapted from a feeding problem questionnaire originally written by Jean Guest and Dr. D. Kelly at the University of Nebraska Medical Center, Omaha, Nebraska and later adapted to a feeding assessment form by MacDonald and Harris (1990).
31. Is there any physical handicap that affects your child’s feeding/eating?  
   Yes  No  Don’t Know

32. Has your child ever seen a speech pathologist?  
   Yes  No  Don’t Know

33. Do you think that your child’s speech is delayed?  
   Yes  No  Don’t Know

34. Do you have any other problems with feeding your child that were not addressed here? If so, please describe below.

Sample Daily Food Intake (please provide a brief description of the type and amount of food consumed by your child during the course of a typical day)

Breakfast:

Mid-morning:

Midday:

Mid-afternoon:

Evening Meal:

Bedtime:

This feeding assessment form is adapted from a feeding problem questionnaire originally written by Jean Guest and Dr. D. Kelly at the University of Nebraska Medical Center, Omaha, Nebraska and later adapted to a feeding assessment form by MacDonald and Harris (1990).
Appendix D

Child Eating Behavior Inventory
# Children's Eating Behavior Inventory (CEBI)

**Child's Name:**

**Age:** __________

**Gender:** M F

**Years**

**Months**

**DIRECTIONS:** CIRCLE THE NUMBER THAT CORRESPONDS WITH HOW OFTEN THE BEHAVIOR OCCURS

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
<th>Never</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
<th>Is this a problem for you?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>My child chews food as expected for his/her age.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>My child helps to set the table.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td>3</td>
<td>My child watches TV at meals.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td>4</td>
<td>I feed my child if he/she doesn't eat.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td>5</td>
<td>My child takes more than half an hour to eat his/her meals.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td>6</td>
<td>Relatives complain about my child's eating.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td>7</td>
<td>My child enjoys eating.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td>8</td>
<td>My child asks for food which he/she shouldn't have.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td>9</td>
<td>My child feeds him/herself as expected for his/her age.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td>10</td>
<td>My child gags at mealtimes.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td>11</td>
<td>I feel confident my child eats enough.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td>12</td>
<td>I find our meals stressful.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td>13</td>
<td>My child vomits at mealtimes.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td>14</td>
<td>My child takes food between meals without asking.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. My child comes to the table 1 or 2 minutes after I call.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. My child chokes at mealtimes.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. My child eats quickly.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. My child makes foods for him/herself when not allowed.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. I get upset when my child doesn't eat.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. At home, my child eats food he/she shouldn't have.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. My child eats foods that taste different.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. I let my child have snacks between meals.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. My child uses silverware as expected for his/her age.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. At friends' homes, my child eats foods she/he shouldn't eat.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. My child asks for food between meals.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. I get upset when I think about our family meals.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. My child eats chunky foods.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. My child lets food sit in his/her mouth without swallowing.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. At dinner, I let my child choose the foods he/she wants from what is served.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**IF YOU ARE A SINGLE PARENT SKIP TO NUMBER 34**

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>30. My child's behavior at meals upsets my spouse.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>31. I agree with my spouse about how much our child should eat.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32. My child interrupts conversations with my spouse at meals.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33. I get upset with my spouse at meals.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34. My child eats when upset.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35. My child says he/she is hungry.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36. My child says he/she will get too fat if he/she eats too much.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37. My child helps to clear the table.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38. My child hides food.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39. My child brings toys or books to the table.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**IF YOU HAVE ONLY ONE CHILD SKIP NUMBER 40**

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>40. My child’s behavior at meals upsets our other children.</td>
<td>1 2 3 4 5</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PLEASE CHECK TO SEE THAT YOU HAVE ANSWERED ALL THE ITEMS.**

**PLEASE CHECK TO SEE THAT YOU HAVE CIRCLED A YES OR NO FOR EACH ITEM. THANK-YOU!**
Appendix E

Satisfaction Survey
1. **Overall, did you find this book helpful? Would you recommend it to a close friend or family member? Why or Why not?**
   - Yes. Although [my son] isn’t a great eater, the improvement is wonderful (S-001)
   - Honestly, this book wasn’t helpful right now but may be helpful later when my son can understand it better. I would recommend it. There is helpful information in there for picky eaters. (S-003)
   - Yes, I would recommend it. Common sense approach to eating/nutrition. (S-004)
   - Yes, I felt it had particularly good strategies for young children though my child is a little older. The book was clearly written and relevant. (S-005)

2. **What information, tips, or suggestions did you find most helpful?**
   - Getting rid of the bottle and eating in only one place (S-001)
   - I couldn’t tell you. (S-003)
   - Stick to the planned menu, eating is not to be discussed at the table, positive mealtime conversation, serve appropriately sized preferred and non-preferred foods. (S-004)
   - Asking children to finish first serving before getting seconds, suggestion for creating calm meal time atmosphere, discussion on portion sizes, advice not to force child but rather to let the child eat what he wants as long as it is nutritious. (S-005)

3. **What information, tips, or suggestions did you find least helpful?**
   - Left blank (S-001)
   - Nothing (S-003)
   - We did not institute a 20-minute limit on meals. We didn’t agree with this rule. (S-004)
   - The suggestion regarding throwing food. My child is way past that. I was put off by his “rant” against vitamins and supplements. (S-005)

4. **Did you use any of the suggestions from the book? If so, please write down the suggestions you used and how effective they were in helping you cope with the problem.**
   - Yes, getting rid of the bottle and eating in one place. Getting rid of the bottle increased [my son’s] need to eat solid food because he wasn’t always full of milk. (S-001)
   - I did try a couple of different things. I tried to limit juice intake so he would eat. I was able to get him to drink milk. I tried to get him to eat fruits and veggies using different dips. (S-003)
• Yes (see answer for question #2 above). We probably coped with picky eating better because we weren’t running around creating a meal for [my son] while we were eating our own meal. (S-004)

• Yes. Presented preferred foods in smaller portions. Finish all portions before getting seconds on most preferred food. Lighting a candle to create a more relaxed atmosphere (this had no effect). (S-005)

5. **What suggestions do you have that would make the book better and/or more helpful to other parents coping with “picky eaters”**.

• Dealing with problems such as playing in food, throwing food, etc. Although I am sure these are more of a behavioral issue than an eating issue. (S-001)

• I’m not really sure. It is hard to communicate with a two year old. (S-003)

• Frankly, I didn’t read the entire book. I read areas of interest to me. Pages 52-94. I have no suggestions. (S-004)

• More information about and hints on how to deal with specific food aversions like texture or lack of confidence in trying new foods knowing that he didn’t have to eat it if he didn’t want to. (S-005)
Appendix F

Satisfaction Survey Results
1. Overall, did you find this book helpful? Would you recommend it to a close friend or family member?
   - Yes. Although [my son] isn’t a great eater, the improvement is wonderful (S-001)
   - Honestly, this book wasn’t helpful right now, but may be helpful later when my son can understand it better. I would recommend it. There is helpful information in there for picky eaters. (S-003)
   - Yes, I would recommend it. Common sense approach to eating/nutrition. (S-004)
   - Yes, I felt it had particularly good strategies for young children though my child is a little older. The book was clearly written and relevant. (S-005)

2. What information, tips, or suggestions did you find most helpful?
   - Getting rid of the bottle and eating in only one place. (S-001)
   - I couldn’t tell you. (S-003)
   - Stick to the planned menu, eating is not to be discussed at the table, positive mealtime conversation, serve appropriately sized portions of preferred and non-preferred foods. (S-004)
   - Asking children to finish first serving before getting seconds, suggestions for creating calm mealtime atmosphere, discussion on portion sizes, advice not to force child but rather to let the child eat what he wants as long as it is nutritious. (S-005)

3. What information, tips, or suggestions did you find least helpful?
   - Left blank (S-001)
   - Nothing (S-003)
   - We did not institute a 20-minute limit on meals. We didn’t agree with this rule. (S-004)
   - The suggestion regarding throwing food. My child is way past that. I was put off by his “rant” against vitamins and supplements. (S-005)

4. Did you use any of the suggestions from the book? If so, please write down the suggestions you used and how effective they were in helping you cope with the problem.
   - Yes, getting rid of the bottle and eating in one place. Getting rid of the bottle increased [my son’s] need to eat solid food because he wasn’t always full of milk. (S-001)
   - I did try a couple of things. I tried to limit juice intake so he would eat. I was able to get him to drink milk. I tried to get him to eat fruits and veggies using different dips. (S-003)
• Yes (see answer to question #2 above). We probably coped with picky eating better because we weren’t running around creating a meal for [my son] while we were eating our own meal. (S-004)
• Yes. Presented preferred foods in smaller portions. Finish all portions before getting seconds on most preferred food. Lighting a candle to create a more relaxed atmosphere (this had no effect). (S-005)

5. **What suggestions do you have that would make the book better and/or more helpful to other parents coping with “picky eaters”?**

• Dealing with problems such as playing in food, throwing food, etc. Although I am sure these are more of a behavioral issue than an eating issue. (S-001)
• I’m not really sure. It is hard to communicate with a two year old. (S-003)
• Frankly, I did not read the entire book. I read areas of interest to me. Pages 52-94. I have no suggestions. (S-004)
• More information about and hints on how to deal with specific food aversions like texture or lack of confidence in trying new foods knowing that he didn’t have to eat it if he didn’t want to. (S-005)
Appendix G

Post-Evaluation
Coping With a Picky Eater
Post-Evaluation

1. Overall, did you find this book helpful? Would you recommend it to a close friend or family member? Why or why not?

2. What information, tips, or suggestions from the book did you find most helpful?

3. What information, tips, or suggestions from the book did you find least helpful?

4. Did you use any of the suggestions from the book? If so, please write down which suggestions you used and how effective they were in helping you cope with the problem.

5. What suggestions do you have that would make the book better and/or more helpful to other parents coping with “picky eaters”? 
Appendix H

Figures
Figure 8. Non-Preferred (NP) Index Scores.
Figure 9. Evening Meal Consumption.
Figure 10. Portions by Category.
BIBLIOGRAPHY


