Critical Review: The Effectiveness of Behavioural Treatment Approaches to Improve Oral Intake in Children with Feeding Challenges or Food Refusal

Yvonne Yee
M.Cl.Sc. (SLP) Candidate
University of Western Ontario: School of Communication Sciences and Disorders

This critical review examines the effectiveness of behavioural treatment approaches to improve oral intake in children with feeding challenges or food refusal. All studies reviewed utilized single-subject research design. Overall, research supports the use of various behavioural interventions in establishing oral food intake in children with food refusal in the absence of organic causes. However, it has been suggested that future researchers should attempt to evaluate additional forms of behavioural treatment that may prove to be effective, but for which empirical evidence is still lacking.

Introduction

Children who suffer from food refusal are generally described as exhibiting a pattern of freely accepting a limited range of food, only soft textures, or an inadequate amount of food to maintain a healthy weight (Ginsberg, 1998 and Williamson et al., 1987, as cited in Werle, Murphy, & Budd, 1993). Food refusal is often associated with disruptive behaviours such as refusing to self-feed, gagging on or spitting out food, and eating on a varying schedule (Linscheid, 1992).

Children with severe food refusal are at high risk for a number of problems including excessive weight loss, lethargy, dehydration, malnutrition, vulnerability to infectious diseases, and growth retardation (Riordan et al., 1984; de Moor et al., 2006).

There is rarely a single cause in situations of food refusal. The etiology of food refusal can be attributed to a number of organic factors including physiological abnormalities, such as anatomical defect, neurological dysfunction, or acute infectious diseases (Werle et al., 1993; Byars et al., 2003; Riordan et al., 1984). However, abnormal feeding patterns are not solely a result of organic impairment. Though congenital disorders are responsible for the onset of the majority of feeding challenges, these problems are often sustained by behavioural factors such as the environment (Riordan et. al.; Byars et al.).

Research has demonstrated that feeding problems in children can be treated effectively using behavioural approaches to treatment (Babbitt et al., 1994 as cited in Linscheid, 2006; Kerwin, 1999). Training parents in appropriate behavioral treatment procedures can encourage the transference of skills from the hospital to the home setting and it may help with issues that are not present in a controlled medical/clinical setting (Werle et al., 1993; Gutentag et al., 2000).

Although speech-language pathologists may not work directly in cases where children have feeding challenges, they may work in collaboration with other professionals in the assessment and treatment via referrals (Linscheid, 2006). Therefore, it is of benefit for S-LPs to familiarize themselves with the various behavioural interventions used and to address food refusal and the empirical evidence that support these approaches.

Objectives

The primary objective of this paper is to critically evaluate existing literature regarding the effectiveness of behavioural treatment in improving oral intake in children with food refusal or food challenges. Recommendations on how to incorporate evidence-based behavioural methods into clinical practice, as well as suggestions for future research will be discussed.

Methods

Search Strategy

Computerized databases, including MEDLINE and PubMed were searched using the following search strategy:

> (infant OR child) AND (food aversion OR food refusal OR oral aversion) AND feeding AND (treatment or therapy).
> Reference lists from articles were also used to obtain relevant studies.

Selection Criteria

Studies selected for inclusion in this critical review paper were required to investigate the effectiveness of behavioural interventions to establish oral food intake in

significantly more food post-treatment compared to their baseline data. Unlike the study conducted by De

Level of Evidence This study was a single subject design with a pretreatment baseline. Apart from the use -moment correlation, there was a lack of statistical analysis for the main objective of the study, which was to analyze the effects of a behavioural treatment program in a gastronomy tube-dependent child. Many confounding variables with no controls were also present; therefore, this study is considered to demonstrate a lower level of evidence.

Discussion

With the exception of one study, there were at least two children evaluated in each study. Therefore, a limitation of the studies was the small number of participants. Several factors may have impacted the number of replications of studies. First, children with existing medical conditions or organic factors that could have interfered with feeding were excluded. Second, low referral rate at the time of study may have limited the number of participants. Some of the articles addressed the small sample size as a limitation to their study but

child in natural settings. *Behavior Modification, 24(3)*; 395-