



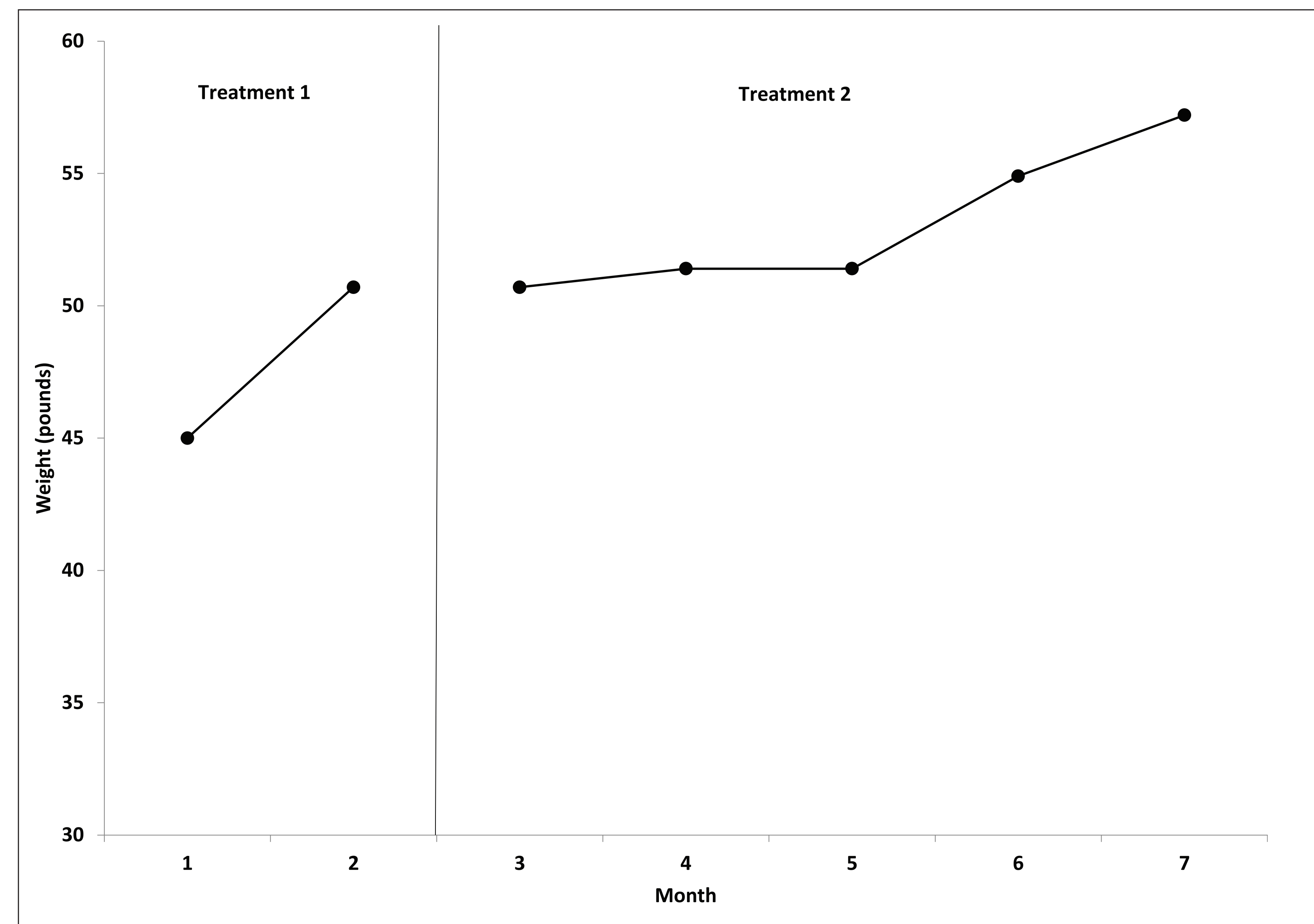
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Introduction

Evidence exists that food refusal and food selectivity occur more frequently among children diagnosed with autism than typically developing children (Schreck, et. al., 2004). Many interventions have been shown to be successful in addressing these issues, such as escape extinction and reinforcement for bite acceptance (Ahearn, 2001). The current study will examine the effectiveness of a bite based escape contingency to increase bite acceptance.

A Comparison of Two Interventions on Increasing Food Intake

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METHOD

Participants

The participant was a 10-year-old female diagnosed with autism. She was dependent upon a G-tube for a majority of her nutrition, due to a complicated medical history. She resided in a campus-based residential facility and attended the adjacent special education school.

Setting and Materials

All meals were conducted at the dining room table of the participant's residence. An item from each food group (protein, fruits/vegetables, starch) was presented in pureed form. Each item was presented in a separate bowl and the participant was provided with an adaptive spoon.

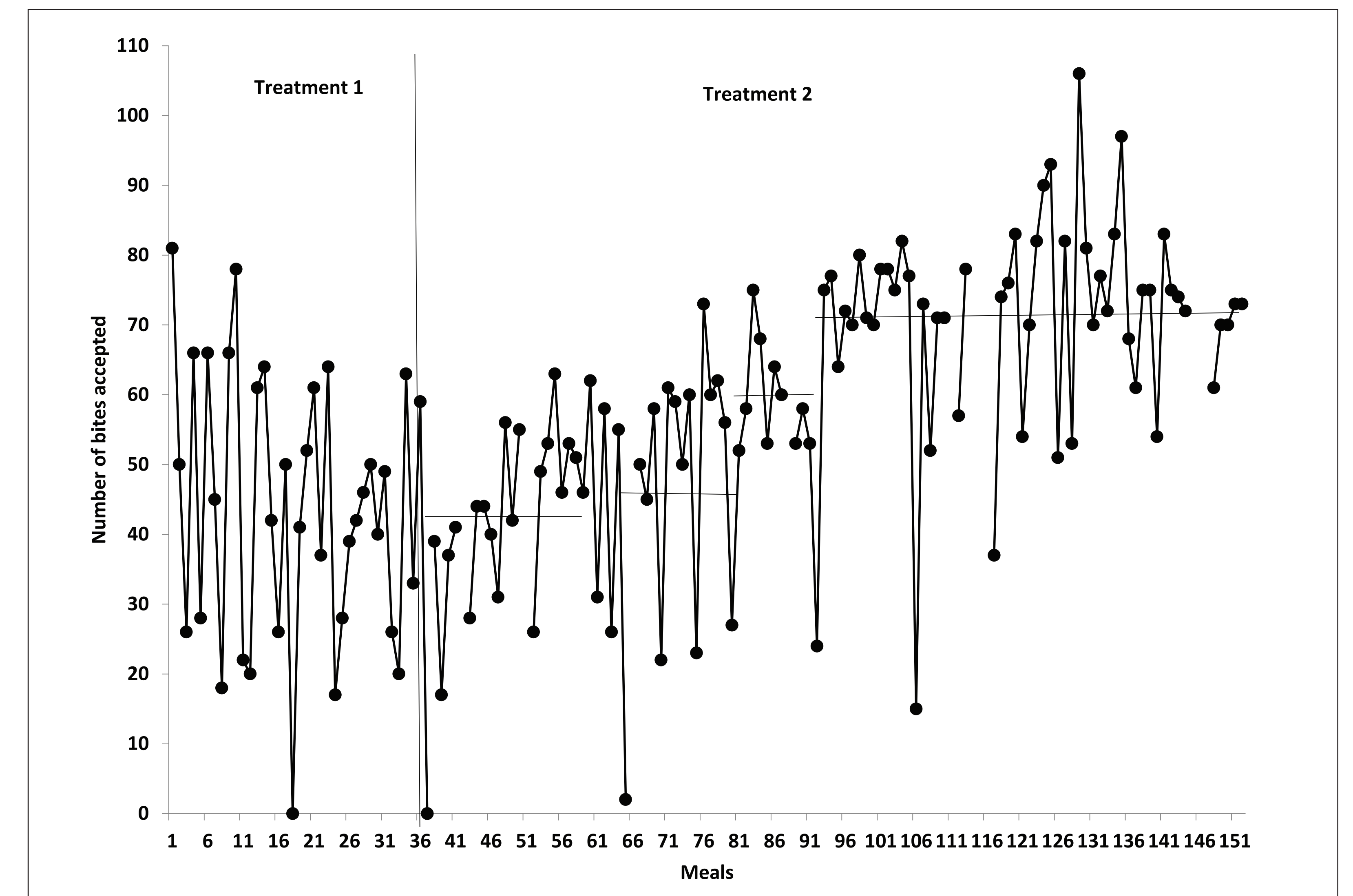
Dependent Measures

Data were collected for accepted bites. Accepted bites were defined as anytime the participant placed a spoonful of food into her mouth and swallowed it.

PROCEDURE

Intervention One: This intervention was a typical time based escape contingency protocol. The participant was presented with 4 ounces of each food and instructed to take a bite. Staff used a least to most prompting sequence for bite acceptance. The participant received verbal praise and a small edible reinforcer (yogurt) for each bite accepted. The meal continued until the participant consumed all food or until 45 minutes passed. At that time, the participant was required to take 5 bites in order to escape the meal.

Intervention Two: This intervention was a bite based escape contingency protocol that was evaluated using a changing criterion design. The number of bites required to escape the meal was determined based upon the mean number of bites accepted during the previous phase. A range of target bites was then established. At the



beginning of the meal, the participant was provided with a choice of two quantities of bites within that range. The participant was then provided with a visual reminder of the number of bites needed to end the meal. Staff continued to utilize a least to most prompting sequence for bite acceptance. Verbal praise and the preferred edible were provided for all accepted bites. When the participant ate the targeted number of bites for that meal, the meal ended.

RESULTS AND DISCUSSION

In Intervention One, the mean number of bites accepted was 43 with a range of 0 to 81 bites per meal. During Intervention Two, the total number of bites required increased with each change in criteria from the initial target of 43 bites to the final target of 76 bites per meal. Throughout intervention two, bite acceptance increased. The mean number of bites accepted was 41 with a range of 17 to 63 bites per meal during the initial phase of treatment two and in the final phase, the mean number of bites accepted was 70 with a range of 15 to 106 bites per meal.

During the study, the participant's weight increased from 45 pounds to 57 pounds. In addition, the amount of nutrition that the participant was receiving via her feeding tube was decreased. Finally, anecdotal reports indicate shorter meal duration, fewer interfering meal time behaviors, and an overall increase in compliance and enjoyment of mealtime.

The results of this study indicate that the bite based escape criteria resulted in an increase in accepted bites and improved oral nutrition. Limitations included a lack of inter-observer agreement data and a return to a lesser number of bites within the changing criterion design. The team agreed that a decrease in the number of bites required was not ethical. Current plans are to continue with the current treatment and discontinue tube feeds if the participant continues to accept the targeted bites and gains and or maintains her weight.