Using a Fork is Not a Joke!

How Applied Behavior Analysis (ABA) helps learning autonomies during meals.

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INTRODUCTION

- Mealtime is an important aspect of family life. Children begin to develop self-feeding skills from birth (WHO, 2006).
- Self-feeding is a very complex task and it is common for children to have difficulty using cutlery. It usually takes until a child is 7 years old before they can successfully use cutlery to feed themselves without being too messy. Eat properly is stricly connected with social inclusion (Summers et al, 2008).
- Historically, a most-to-least prompting system or graduated guidance procedure is used to teach spoon use and/or to decrease inappropriate mealtime behaviors (Ivy et al, 2008).
- Futhermore, Applied Behavior Analysis (ABA) can teach to develope new skills, breaking down each behavior into small steps and teach them one step at a time (chaining) (Peterson et al, 2019).

METHOD

Subject

- Nine years old male diagnosed with Autism and food selectivity.
- F. is able to make simple vocal request and his skills match VB-MAPP level two.
- F. used to eat standing up and with his hands, often moving away from the table looking for motivating objects (I-Pad ®).

Setting and materials

- Two rooms (“Play Room” and “Eating Room”); data sheets, Tokens, Reinforcers.
- Mealtime is 30 minutes long.

Dependent Variable

- Autonomous forks frequency (DV1) vs prompted forks frequency (DV2)
- Sitting Time (DV3)

Independent Variable

- Prompt strategies (physical guidance & least to most)

Procedure

- Lunch is provided inside a dish, fork at disposal. Chair was available to seat down.
- **Baseline.** Instruction: *“It’s time to eat”*. No feedback or prompts were provided. Therapist records time sitting down to eat with a stopwatch and the number of times the fork is used to take food and bring it to the mouth.
- **Teaching Time.** Instruction: *“It’s time to eat”*. If the student did not sit down spontaneously, physical guidance was used to prompt. The fork handle is shaped by the therapist with a least to most prompt strategy. The student was reinforced variable ratio 2 through a token system. Differential Reinforcement was provided for independent behavior.

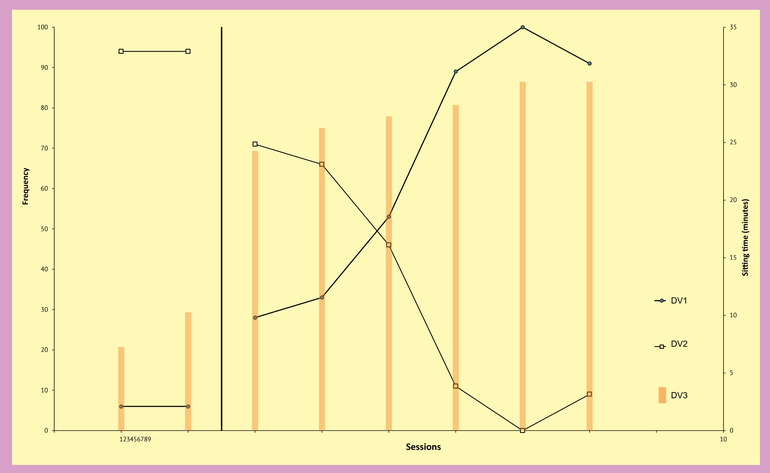
RESULTS

Table 1. Data sheet

	1 BL	2 BL	3 TR	4 TR	5 TR	6 TR	7 TR	8 TR
Sitting time (min)	5	5	7	10	24	26	27	28
% autonoms forks	6	6	28	33	54	89	100	91
% prompted forks	94	94	71	66	46	11	0	9

- The time sitting at the table at the baseline was less than 10 minutes.
- This intervention engage the use of physical guidance, prompting with a least to most strategy increases sitting time up to more than 80% of the time dedicated to the meal .
- Six sessions needed to achieve this first goal of autonomy.

Graph 1. DV1 autonomous forks frequency, DV2 prompted forks frequency, DV3 sitting time (minutes).



DISCUSSION

- This intervention led to gains in child behavior autonomies important in order to experience a proper mealtime session.
- Being able to sit down and eat with a fork is pivotal behavior in social inclusion and quality of life improvement (Schwartz & Kelly, 2021).
- Similar procedure where extended at home with the additonal use of a NCR.
- Moreover, it is a priority to start working on the student’s food selectivity by increasing his willingness to taste new foods.

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