

Meal Planning for Adults with High-Functioning Autism

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Brief Outline of Assessment

From an interview I conducted with the clients, I retrieved information on their eating habits: ate mostly frozen boxed foods, lacked intake of fruits and vegetables, and loved to snack. N.E. had carried over a habit from the higher populated main unit 10: cooking whole boxes of frozen foods. Now that there are just two of them in unit 8, splitting a box of frozen food between the two of them means: a high caloric intake, and a very large portion per person.

From my direct observations:

J.C.: High intake of calories at both lunch and dinner hours.
N.E.: High intake of calories at dinner hours.

Also, both clients snacked frequently between meals, unless they were reprimanded not to. J.C. would display remorse after eating a high amount of calories.

Based on the data I collected, eating unhealthy foods, large portions, and few or no fruits and vegetables shows to be automatically reinforcing for both clients. They get to escape from eating foods they don't like, and have free access to foods they do like (because of their high level of independence). Also, a factor for N.E. could be lack of attention/supervision since he moved from main unit, and that he wants someone to be there with him and to correct him when he is in the wrong.

Concerns from Staff at the Manor included that of portion sizes, recent weight-gain, N.E.'s health (diabetes), and also the high price of their groceries every week.

Task Analyses of Recipes

The clients cook twice per week, N.E. on Mondays and J.C. on Tuesdays, the rest of their meals were provided through either: pot lucks, take out, or eating out at restaurants. On the clients' monthly meal planning board, I wrote down who is cooking what for what day.

Four recipes were used in the treatment phase, two per client. Each client made one casserole recipe and one slow-cooker recipe. These were laminated, colour-coated and were located on their kitchen wall attached by velcro strips. J.C.'s recipes were green and N.E.'s recipes were orange.

The task analyses included a checkmark box located on the left-hand side of each step which they were required to check off each step as they complete it, therefore self-monitoring their performance.

J.C. made: *Easy Chicken Casserole* (31 steps) included: cutting chicken into strips, mixing ingredients.

Ham & Potatoes Slow Cooker Recipe (31 steps) included: chopping up potatoes, ham, and onion, and layering ingredients.

N.E. made: *Beef & Tater Casserole* (25 steps) included: cooking beef in pan, mixing ingredients, topping with potato taters.

Chicken & Pasta Slow Cooker Recipe (24 steps) included: cutting chicken into bite-sized pieces, mixing ingredients.

Data Collection Method & Prompt Hierarchy

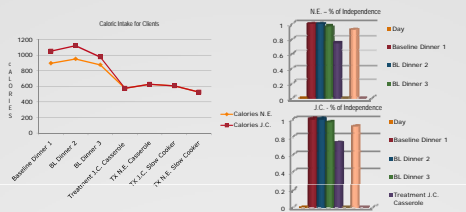
- On each task analysis, the client will self-monitor their performance of each step, and check off as they go with a dry-erase marker. This is only for the preparation/cooking and portioning parts of treatment.
- A data sheet will be used by the mediator entailing: the making of the grocery list, and the preparation, cooking and portioning of the meal. Data will be taken either if the step was done correctly, or if the client required a prompt.

Data will not be taken on whether or not the clients reheat and eat the frozen portions of their recipes.

Prompt hierarchy (least to most):

A) No Prompt, B) Presence of Mediator, C) Gestural, D) Verbal, E) Model.

Results



Measured caloric intake & independence of clients during task analyses:

J.C.: Easy Chicken Casserole Correct: 74% Highest Prompt: Model

Ham & Potatoes Slow Cooker Recipe C: 92% HP: Verbal

N.E.: Beef & Tater Casserole C: 84% HP: Model

Chicken & Pasta Slow Cooker Recipe C: 87% HP: Verbal

Limitations included: elements on clients' stove smoked, clients' knives were very dull (made it difficult for clients to cut), in task analyses did not explain what needs to be fresh & frozen, and also some steps were not detailed enough for clients.

Treatment Phases

1. Making a Grocery List

- Mediator will be with the clients when they are making their grocery lists on Monday morning.
- The mediator may prompt the clients to write the ingredients needed for their recipe by having them read from the task analysis of the recipe posted on the kitchen wall (one recipe per client per week).
- Mediator will allow clients to finish writing their grocery lists independently then the clients are expected to bring their list to the mediator to have them check and okay it.
- After each recipe has been made once, the mediator should allow the clients to write down their ingredients independently but clients are still expected to bring their list to the mediator to have them check and okay it.

2. Preparing and Cooking a Recipe

- Mediator will have the client complete the first step on the task analysis independently.
- The mediator will then prompt (only where needed – least to most) the client through the rest of the task analysis.
- Eventually the clients will be expected to complete the recipe independently without the presence of the mediator over at their unit. The clients will be able to call the mediator and inform them that they require assistance.

3. Portioning a Recipe

Casserole Recipe: A total of 6 portions.
Slow Cooker Recipe: A total of 5 portions.

i) The client will continue following the task analysis for their recipe and follow the portioning instructions: portion two portions for dinner and then portion what remains of the recipe into reusable containers and freeze.

4. Reheating a Recipe

I prepared colour-coated cue cards (J.C. green, N.E. orange) with reheating instructions on each for the clients to take to their workplace or to refer to when reheating a frozen portion at home.

- Client will independently take cue card off of freezer door on their fridge which has a task analysis of reheating instructions. (This will be available for the clients to take to work if they need to, and will outline the proper heating instructions).
- A prompt may be needed as to remind the clients to take the cue card with them when going to work, or to remember to look at it before heating their meal up.

Clients Involved in Treatment

The participants involved in this treatment program live independently in Unit 8 of Woodview Manor. I chose to take on two participants for my treatment program so that they are able to support each other in completing their meals and sharing the responsibility of making meals together. J.C. is 41 years of age and has been living at the Manor for over 10 years. N.E. is 24 years of age and has been living at the manor for just over 4 years. Both clients lived at unit 10, then unit 9, and now in unit 8. The further away the clients move from the main unit, the more independence they are expected to have.

Repertoires:

N.E. has well-developed communication skills, and is good with following direction. His behaviours include: a high level of pacing, high arguability, and a low level of self-talk. A very important factor about N.E. is that he has juvenile diabetes. N.E. has informed me several times that if no one is there to supervise him; he will not do his assigned chores, and will not eat the way he should be.

J.C. has excellent self-face skills, is great with following rules/direction, has fairly well-developed communication skills, and has advanced cleaning skills. His behaviours include: a high level of self-talk and also a guilty conscience (feels bad/beats self up verbally about past events).

About Woodview Manor

Woodview Manor is a division of Woodview Children's Mental Health and Autism Services which includes these centres: Woodview Learning Centre in Burlington serving Halton and Woodview Brantford Intensive Child Family Services serving the community of Brant.

Woodview Manor was established in 1988 in downtown Hamilton as a Supported Independent Living Program for 'more able' adults. Since 1992, the Manor has been located in a 'geared-to-income' townhouse complex on Hamilton Mountain. Woodview Manor now consists of: one 6-bedroom 'teaching' unit, and four 3-bedroom units. At this present site, many programs have been developed: vocational programs, teen and transition groups, and adult part-time programs.

The Manor provides services and support to moderate to more able youth and adults with autism spectrum disorders. Clients' ages range from 10-50+. Woodview Manor's goal is to help each individual live as independently as possible.

Everything else I participated in at the Manor:

Manor Bowling League

On Wednesday mornings the Manor hosts a bowling league at Sherwood Lanes on Hamilton Mountain. This extracurricular sport is not limited to live-in clients, but also clients that do not live within the Manor's residential facilities. This activity provides a social, fun environment for clients to cheer on their team, and each other.

DragonFly Lodge

On the weekend of April 17th to April 19th myself, the placement student, and two staff took 10 clients to DragonFly Lodge in Rockwood, Ontario. Myself and the other placement student planned out the entire trip: printed out a sign up sheet, helped clients budget for trip, helped clients pack for trip, went grocery shopping for trip, planned out activities (scavenger hunt, hikes, outdoor sports and indoor games), and also helped delegate tasks during meal times.

All three days went better than planned; the clients increased their confidence during a balancing exercise in the forest on a wooden log, we hiked every day for at least 45 minutes, we encouraged clients to explore, held a campfire with s'mores and marshmallows, and helped clients gain new skills out in the forest environment.

Hamilton Bulldogs Game

On Saturday April 4th, 2009 myself and another student from Mohawk College in the Child & Youth Worker program took 5 adult clients aged 24-41 years of age to a Hamilton Bulldogs Game. Before we left for downtown, we had the clients create signs cheering on their team. At the game, we encouraged the clients to cheer, do the wave, dance, and much more. It was a fantastic experience!

Groups

On Monday nights two staff hold a group for transitioning teens aged 13-16 years of age at Delta High School. Clients are assigned to either before or after dinner chores or to cooking a meal. Clients plan out a meal, grocery shop, then cook the meal in the school. Skill-building is the focus of this group, teaching the clients how to be independent in several ways. On Thursday nights two staff hold a group for teens aged 16-18 years of age at the Manor. One client is assigned the job of choosing a meal, grocery shopping and then cooking the meal. The rest of the clients are assigned before or after dinner chores. Fun activities follow! Also on Thursday nights, one staff hold an After Hours Club for clients aged 18-50+ at Christian Horizons centre in Hamilton. Clients order in food, chat, relax, and play games.

Supporting Literature

Pierce & Schreibman's article: self-monitoring was found to be successful with preparing snacks with children with a diagnosis of mental retardation (1994).
Selznick & Savage article: showed that using self-monitoring procedures with adolescent boys with brain injuries proved successful in increasing their on-task behaviour (2000).
Connis article: tested the effectiveness of self-recording in an on the job task sequence with adults with mental retardation.
Since independence is such an imperative part of Woodview Manor's philosophy I had to contour the best available scientific evidence I found to their specific requirements.
No scientific evidence was shown directly relating independent adults with high-functioning autism/developmental disabilities and meal preparation and/or planning.

References

- Connis, R.T. (1979). The effects of sequential pictorial cues, self-recording, and praise on the job task sequencing of retarded adults. *Journal of Applied Behavior Analysis*, 12(3), 355-361.
- Pierce, K.L., & Schreibman, L. (1994). Teaching daily living skills to children with autism in unsupervised settings through pictorial self-management. *Journal of Applied Behavior Analysis*, 27(3), 471-481.
- Selznick, L., & Savage, R. (2000, July). Using self-monitoring procedures to increase on-task behavior with three adolescent boys with brain injury. *Behavioral Interventions*, 15(3), 243-260.