

The Journey to a Healthy Lunch

This article describes how, following the extension of the Delivering Equality of Opportunity in Schools (DEIS) free school lunch scheme to special schools, a speech and language therapist with an interest in the eating preferences of children with autistic spectrum disorder (ASD) took on the project of introducing a healthy free lunch to students with ASD and intellectual disability in a special school. Liaison with parents, record keeping, Social Stories™, token systems, food trialling and food chaining were used to support students in this journey. Other eating difficulties, including poor pacing, chewing difficulties and rushed swallowing, were identified and targeted.

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BACKGROUND

The following is an outline of a project that took place in a special school for seventy-two students aged between ten and eighteen years, who have a dual diagnosis of autistic spectrum disorder (ASD) and mild/moderate intellectual disability. In addition to the challenges caused by the triad of impairment, many of our students have significant difficulties in the area of sensory regulation, with consequential challenging behaviours. The school has recently been re-designated as a second level provision for students over the age of twelve; previously, we enrolled children from five to eighteen years. The school has twelve classes of six students per class. In addition to the teacher, each class currently has an allocation of three special needs assistants (SNAs). The school is presently supported by a Health Service Executive funded multi-disciplinary team including a full time senior speech and language therapist, a part time occupational therapist and a part time psychologist. Behaviour Specialist and Social Work support are available on a referral basis.

Although the school had regularly reminded families of its healthy lunch policy, this was not always adhered to. Reasons for this included the rigidity experienced by many students with ASD around food routines and their often marked preference for processed food. Parents gave their children what they knew they would eat, so that they would not be hungry during the school day and because

they did not wish to begin the day with a battle over the lunchbox. Some students saw other children ‘get away’ with food of poor dietary quality such as microwave chips or pot noodles, and demanded the same.

Previous Interventions

While parents had originally requested that microwaves be provided at school to heat up the previous day’s dinner they were in fact used to heat processed foods of poor nutritional value. Staff spent up to twenty minutes of a thirty minute lunch break heating food for different students in their class. Fewer than ten percent of children brought a sandwich, and for those who did, it was generally the same filling every day. More than sixty percent of children brought highly processed foods such as chicken nuggets, fish fingers, sausage rolls, potato waffles, microwave chips, microwave pizza, breakfast bars, instant noodles, muffins, biscuits, popcorn, crisps, rice cakes or plain pasta. Lunches were high in refined carbohydrates and fat, and usually low in protein. Fewer than ten percent of children brought in a serving of fresh fruit. Drinks were generally juice or fruit drinks.

The speech and language therapists had run “*Food is Fun*” (Gill and Gleeson, 2010) groups both intensively during school holidays and weekly during term time. Although progress was made during these sessions, this progress was not always sustained when the interventions finished, both in school and at home. The school participated in *Food Dudes* and *Fruit Time* projects, but again these class-based activities did not always translate into improved diets.

In June 2013, the school was informed that the Free School Lunch Scheme was to be extended from DEIS schools to include special schools. We saw this as an excellent opportunity to improve the nutritional value of lunches. We chose Company X on the recommendation of the Irish Primary Principal’s Network and invited parents to attend information sessions which were addressed by the company’s representative, a dietician, a fitness teacher and the author and coordinator of the project - a speech and language therapist with an interest in the eating preferences of children with ASD. Over fifty percent of parents attended these sessions, and expressed their consent to the project, which was that the speech and language therapist would take responsibility for choosing the lunch menu, thereby taking away the battle of the lunchbox in the morning at home. Following this meeting, some students trialled some of the sandwiches and gave their opinions.

Rationale for the Healthy Lunch

The staff decided to embark on a sandwich lunch for students for five reasons:

- Many students had a lunch of very poor dietary quality, and the proposed Free School Lunch consisting of a brown bread sandwich (with a variety of fillings), carrot, apple and water was a very healthy option for them;
- The heating of individual lunches was taking too long with students eating too quickly so as to be ready to go to the playground;
- Staff were heating lunches, rather than supervising meals and encouraging better eating practices;
- It is a very useful social skill to be able to eat a sandwich: on a picnic, in a power-cut, on a journey, if a flight is delayed for example;
- It is socially appropriate to eat the same kind of food as one's peers at a meal, rather than everyone eating something different.

From September, seventy out of seventy-one students participated in the Free School Lunch Scheme. One family whose child was on a strict gluten and dairy-free diet, opted to continue to make their own bread and send in their own sandwiches, which were nutritious and well balanced. This student also drank water and shared his apple/carrots with his peers. Three other students on a gluten and dairy-free diet had to opt out after it was discovered that the bread provided was not dairy-free. However, the parents of these students then sent in their own bread, and Company X arranged for a filling to be provided resulting in two of the three students assembling their own sandwiches. (The cost of dairy and gluten free bread is beyond the company's budget for lunches). The third student stated a preference for his salads from home. Again, these were nutritious and met the school goals of a healthy lunch. One student was not included in this project due to long-standing issues around food and an inability to chew.

IMPLEMENTATION OF THE SCHEME

It was decided that students should start in September 2013 with a chicken sandwich. All students were told of the change prior to September via a Social Story™ (Gray, 2000). Students under the age of twelve had wholemeal bread and older students had a brown bread roll. Every student had a sports bottle of 250mls water. Each class had three portions of raw carrot discs and three fresh apples to be divided between the six students. For the first three weeks Company X generously provided an identical free staff lunch for each class, so that one staff member could sit with the students and eat the same lunch in order to model biting, chewing and pacing skills. Staff and students sat together at a group table in their classroom, with the rare exception of two children in different classes who

could not tolerate group activities, and who ate at their own work station. For behavioural reasons another student sat nearby with a staff member with his table being slowly moved towards the group table as the scheme progressed. Staff tracked what and how much the students ate, using a progress record. Students who refused to eat the new foods were requested to handle them - putting them on a plate or in the bin, building up to smelling, kissing, licking and nibbling the food. For a small minority of students, this is still in progress after four months. Again, classroom staff tracked this (Appendix 1). These record sheets were submitted to the speech and language therapist, who communicated with parents about progress on a weekly basis.

RESULTS

Change is frequently difficult for students with ASD. It was anticipated that students might need a period of three weeks to get used to the idea of a chicken sandwich. However, by the end of the first week, it was clear that many students were enjoying the sandwich and were ready to try other fillings. After four weeks,

- Seventy percent of pupils were eating at least fifty percent of their sandwich twice a week;
- Seventy percent of pupils were eating three different fillings during the week;
- Eighty percent of pupils were eating carrots and apples;
- Ninety-five percent of pupils were drinking water;
- Some students' intake varied, as on some days they refused food completely while on other days they ate their full lunch;
- One child displayed regressive behaviours in many areas, precluding the new lunch. He ate his own lunch, which was not unhealthy, but did not include bread.

The speech and language therapist implemented the programme for the first four weeks, ordering all the lunches and introducing variations in fillings and breads depending on students' progress. Due to time constraints an SNA in each class in discussion with students where possible, took responsibility for ordering lunches from October. The speech and language therapist continues to monitor and coordinate the project. Students are encouraged to try different breads and fillings, and to share fruit and carrot discs, so that they get a variety of food.

For the twenty-five percent of students showing resistance, various techniques are being tried. They include 'Food trialling' where the student is gradually exposed

to touching the food with their hands, placing it in containers, smelling it, touching it to their lips, licking it, holding it between their teeth for a photo, eating a tiny sliver, and eating a bigger sliver. They are provided with Lucky Dip Surprise rewards for touching, licking, nibbling and eating. 'First /Then' cards, with a pleasurable activity following the trying of the new target food are also used. This cohort of students is only exposed to one filling (i.e. chicken or cheese). Some staff introduced a toaster (without full discussion as to the social aspect of being able to eat a sandwich). About ten percent of students insist on their sandwich being toasted. We are slowly negotiating that they eat part of the sandwich cold before we toast the rest of it.

The speech and language therapist eats the same lunch as the students, and rotates through the classes once every three weeks. She observes eating skills in general: pacing, chewing, swallowing, co-ordination, table manners. She has noted that:

- About twenty percent of students had poor biting off skills as they had been used to finger feeding themselves bite-sized mouthfuls or spoonfuls of food;
- Approximately thirty percent of students, including most of the twenty percent referred to above, deconstructed their sandwich. While they ate all the filling and all the bread, they did not eat into a sandwich in a conventional way;
- About fifteen percent of students overstuffed their mouths;
- About twenty percent of students had poor chewing skills, and swallowed too soon;
- Approximately thirty percent of students chewed with an open mouth.
- About ten percent of students ate all of their food and then drank all of their water, rather than eating and sipping in turn;
- About ten percent of students brought their mouth to the food, rather than bringing the food to their mouth;
- About fifteen percent of students held the sandwich beside their mouth, rather than placing it on a plate between mouthfuls; seven percent of students nibbled at their sandwich while chewing and swallowing. This is a dangerous habit, putting the student at risk of dysphagia.¹

¹ Dysphagia refers to impaired swallowing which usually leads to respiratory difficulties, and can cause death. Prevalence of dysphagia in adults with ID ranges from 36%–73% (Baker et al. 2010), and is generally unrecognised (IASLT 2010); it frequently develops from poor eating practices in childhood

The speech and language therapist created coaster mats for each student, to work on a particular target. These placemats acted as reminders for students, staff who rotated their breaks and for substitute staff.

OUTCOMES

For many students, our goalposts have changed. Seventy-five percent of them are eating a considerably healthier lunch than previously. Our new target is improved chewing skills and better table manners. We are also introducing more salad items into lunches, including lettuce, cucumber, tomato, celery, raw peppers and coleslaw, with good results. Parents contribute to the cost of these salad items.

An unexpected but welcome benefit of the Healthy Lunch has been the reduction of challenging behaviours, particularly in the afternoon session. There has also been a positive social aspect, linked with functional reading. The lunches are delivered before the school opens. One of the senior boys helped to construct a self-assembly locker in which the driver deposits the lunches. Teams of students take in the trays of lunches, sort them into the class groupings and deliver them to the classrooms. This has promoted a sense of social responsibility, as well as functional reading skills in matching names to classrooms. It has also enhanced physical dexterity with students holding a tray of sandwiches while opening swing doors and knocking at a classroom door.

Opinions on the Healthy Lunch

Parental feedback includes the following comments:

- “He’s eating more at home too.”
- “He ate everything on the pizza. I didn’t have to scrape off the toppings like I usually do.”
- “The organising must be hard work, but it’s worth it.”
- “He’s not as fussy about brands as he was.”
- “I know he isn’t eating much of the sandwich at school, but he comes home hungry and eats a proper dinner; he is not coming home on a “sugar high” and craving more of the same.”
- “At first, we were worried because he came home hungry, and I had to feed him before his dad and I ate dinner, which was our social time together, but now he is eating his whole sandwich at school, and he can wait when he comes home, so we all eat dinner as a family again.”
- “He had a fantastic dinner on Christmas day. He managed without complaint and finished his plate of turkey, carrots, mashed potato and

roast potatoes. He did the same on New Year's Day, and again yesterday with chicken. So a huge thank you goes to J (coordinator) for introducing the healthy lunches to school."

- "I'm thrilled."
- "Thank you so very much."

Student feedback includes the following comments:

- "It's delicious."
- "Thank you J (coordinator); my sandwich is yummy."
- "Thanks J (coordinator), where do you make the sandwiches?"
- "Can I try that green stuff (lettuce) next week?"
- "Can I have a roll instead of bread?"
- "If you eat it, I'll eat it."

The staff was surveyed after one month of the project. All agreed they should be promoting a healthy lunch and that being able to eat a sandwich was a useful social skill. Ninety-one percent agreed that even though some students were not eating the sandwich yet, it was good for them to have their own bag like everyone else and food-trial the sandwich, carrot and apple. Eighty-eight percent agreed the new lunch was working well. While ninety percent agreed that staff should continue to sit with students at lunch time to encourage appropriate pacing, chewing and to promote conversation this does not happen in all classes.

The part-time cookery teacher was delighted with the change in lunches. Using a Social Story™ (Gray, 2000) (Appendix 2) similar to the one for the healthy lunch, she spent the first term of 2013-14 making healthy breakfasts in her weekly sessions with the students. It is her intention to follow this with healthy lunches and dinners. This allows students link what they make with what they actually eat.

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Any further information regarding this project is available from the author at joannagillst@gmail.com.

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APPENDIX 1 – HEALTHY LUNCH FOOD PROGRESS RECORD 2

Name:..... Healthy Lunch Week 5

If someone eats the sandwich in the normal way, please tick under sandwich; if they separate it out, and only eat the bread or filling, please complete under bread or filling. It is OK to have different scores for different foods

Monday

Sandwich	Bread	Filling	Apple	Banana	Orange	Carrot	Water

Tuesday

Sandwich	Bread	Filling	Apple	Banana	Orange	Carrot	Water

Wednesday

Sandwich	Bread	Filling	Apple	Banana	Orange	Carrot	Water

Thursday

Sandwich	Bread	Filling	Apple	Banana	Orange	Carrot	Water

Friday

Sandwich	Bread	Filling	Apple	Banana	Orange	Carrot	Water

- Key
- 1 consumed all without protest
 - 2 consumed all with protest
 - 3 consumed more than half
 - 4 consumed less than half
 - 5 nibbled
 - 6 licked
 - 7 touched/put in bin/passed to someone else
 - 8 refused to touch at all

Comments

APPENDIX 2 – WHAT IS A HEALTHY BREAKFAST?

M is teaching us about healthy breakfasts.

A healthy breakfast has four parts:

Protein to make our brains work better

Protein is milk, eggs, rashers



Starch to give us energy in our body

Starch is toast, cereal, porridge



Fruit to keep our blood healthy

Fruit, fruit juice



Liquid to keep our stomachs working properly

Liquid is a drink like juice or milk or tea



Today M and I made

Today I ate

I will try a healthy breakfast at home; it is a good start to the day.

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