

Independent living skills taught to autistic children and young people in an education setting

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ABSTRACT: This case study discusses the similarities and differences between the independent living skills that are taught to the youngest age group in the BeyondAutism primary school (6-7 years old) and to the oldest age group of BeyondAutism learners in the Post-19 service (19-25 years old). All the learners' current independent education and learning plans were reviewed in order to identify the targeted skills relating to independent living. The functionality of these skills within their plans is emphasised so that their learning time is being taken advantage of while at school and to encourage opportunities to learn at home as well. These skills are chosen to be developed based on their use in everyday life and according to age appropriateness. There is some crossover in the types of independent living skills taught between the age groups such as hygiene related targets and community-based targets. However, there are some differences such as more focus on clothing related skills in the younger cohort which is likely to do with age limitations that involve motor development. This case study concludes that independent living skills are vital to be taught within education settings and at home to allow for multiple learning opportunities, and that these skills can continue to be taught and developed throughout life, especially when engaged in education services.

Introduction

In this case study I will compare the differences between the types of independent living skills that are taught to the youngest group and to the oldest group of service users engaged in education within BeyondAutism in order to identify the difference in skills that are taught according to functionality and capability. The sample consists of the primary school pupils, aged 6 years old, and the Post-19 students, aged between 19 and 25 years old. All of these students have a diagnosis of autism, some with other co-occurring conditions such as OCD and ADHD. There is wide variation between the speech and language abilities of the students, ranging from full vocal ability to non-speaking with some use of Makaton sign language. The students all possess an individualised education plan (IEP) or an individualised learning plan (ILP) depending on their age. This means that the independent living skills that they have been assigned as targets are catered towards their abilities and potential through assessment of what they are able to do and what would be the most functional for them in their independent life. Therefore, there are a range of skills that are taught across the age range, making it useful to compare what skills are being taught when, and for what capability level of student.

A number of independence targets are common across some of the students across the age range within the service, making it interesting to compare which students are learning similar skills and at what stage within their education. In addition is unlikely that many of the

students involved in the oldest group of students within BeyondAutism, started their education at the beginning of their education in BeyondAutism's primary school. This means that the education setting they may have been at previously may not have begun to teach them these skills or taken the data on their independence abilities for us to know what stage they were at. Therefore, the skills that are included in their education plans are only what was observed through assessments before joining their current education setting. They may have begun to develop some skills which were then neglected or not maintained and so lost them before these plans were created. This makes it more difficult to do a comparison of what skills need to be taught or are more functional to be developed at what age, as some of the older students may still need to develop the basic skills that are taught to the younger students first. As a result, this comparison is purely based on what independent living skills are currently taught to the current students in the Beyond Autism primary school and Post-19 education service.

Literature Review

Independent living skills are crucial to a person's autonomy and as a result, increases their sense of self-esteem and confidence to engage in daily activities without needing to rely heavily on support from others (Green and Carter, 2011). Research also shows that independent living skills can allow autistic young people to cope with transitions better, be able to access and benefit from work experience placements leading to employment, and the opportunity to live in supported living housing, which ultimately results in a better quality of life (Pillay, Brownlow, and March, 2022). These skills can be taught within school settings at any stage through natural environment teaching in order to pick up key actions that have high frequency and longevity throughout life. These can include actions such as pulling up trousers, brushing one's teeth, and using a toaster; according to Taconet et al. (2023) the most commonly taught types of independent living skills are cooking and cleaning. A larger number of students with special educational needs (SEN) are more likely to not have developed these basic life skills before reaching primary school, compared to neurotypical students. These skills may also take longer to be acquired in this population of students, thus requiring teaching to take place at any

point possible, including within the school day.

Legislation for the education of individuals with SEN has changed over time to include a greater focus on teaching functional skills that are inevitably implemented in daily life (Ayres, Lowrey, Douglas, et al, 2011). This provides great rationale for the creation and use of IEPs and ILPs that tailors education plans to the individual, thus building a programme for them that involves key skills that would be useful for them to develop, whether academic or otherwise. These tailored programmes are developed based on assessments of the individuals' abilities and research has found that daily living skills appear to be impaired in accordance with their cognitive skills when followed from age two to age twenty-one years (Hus-Bal, Kim, Cheong, et al., 2015). According to the same study, early childhood nonverbal mental age appeared to be the strongest predictor of attainment for daily living skills, and these skills seem to continue developing throughout childhood and adolescence. Thus, providing even more support for the continual teaching of these skills and implementation within education plans throughout the educational career of autistic students in order for them to reach their potential of independence. Although, previous studies have found that factors such as age and autism are predictors of the growth of the development of daily living skills, and child "behaviours that challenge" predict only the initial acquisition of daily living skills but then have less of an effect on subsequent skills development (Green and Carter, 2011).

As well as school being crucial to learning and maintaining these independent skills, it is also key to have consistency across to the learners' home settings as well so that they are able to have more time to practice these skills and be able to generalise the skills to other settings where they are likely to conduct these tasks in real life (Carothers and Taylor, 2004). In school some of these skills are practiced in natural environment teaching such as hand washing and pulling up trousers after toileting. However, quite a lot of these targets have to be implemented in contrived sessions where they may not seem perfectly natural, although are made as sensible as possible. These can include learning to brush your teeth which can be done after lunch or snack time, even though in normal circumstances people only brush their teeth at the beginning and end of the

day. This demonstrates that in everyday life we only have two occasions per day to practice brushing our teeth, if a child is struggling with adopting this skill, it is very beneficial to be able to provide them with more opportunities to practice. This is especially important if the child is resistant to the task at hand where more gradual exposure and tolerance of the task needs to be introduced. Therefore, it is advantageous if the way of teaching this skill can be kept as consistent as possible across settings and teachers so that the learner can have more opportunities to learn, thus bringing in the role of parents or caregivers at home acting as teachers.

Method

When comparing the independent living skills taught to the primary school pupils and the Post-19 learners, I will only be referring to students that I have personally worked with on a one-to-one basis or that have been in the class/hub that I have worked in for a term.

The sample of Post-19 learners consists of nine learners (two female, seven male) all aged between 19 and 25 years old. All of the learners are taken from one of the Post-19 locations, some learners previously attended other BeyondAutism education services while others have only been involved with the Post-19 service. The sample of primary school learners consists of eight pupils (all male) aged between 6 and 7 years old. All learners have a formal diagnosis of autism, some with co-occurring conditions such as ADHD and OCD. All learners attended their respective education settings five days a week with one-to-one tutors assisting them in engaging with their education plans in order to meet their targets.

In order to compare the difference, I have collated the targets relating to independence from the primary and post-19 students' IEP and ILP. Each of the students in Post-19 are assigned one of three course pathways based on their abilities, and their targets are then created according to the pathway they are taking part in. These course pathways are: engagement, community and life skills, and vocational skills and volunteering. One Post-19 student was involved with the engagement pathway, four students involved with the community and life skills pathway, and four students involved with the vocational skills and volunteering pathway. The post-19 ILPs consist of targets split into six categories: (1) education, learning and employment, (2) independent living, (3) community inclusion (participation and relationships), (4) health, (5) literacy, and (6) maths. I identified the individual students' targets within the independent living skills section of their ILP as well as any targets that are relevant to independent living skills in other categories of the ILP.

The primary school students' IEPs consist of targets split into five categories: (1) cognition and learning, (2) communication and interaction, (3) social, emotional, and mental health, (4) sensory and physical, and (5) community and leisure. As seen, the IEPs do not have a section for independent living skills, however, the other categories include targets relevant to independent living skills that I have chosen to include in my comparison. I will compare their independent living skills targets to show at which age they are starting to be taught certain skills and the potential trajectory of what skills they could eventually be taught towards the end of their education.

It is important to keep in mind that these learners will be taught their targets within education settings that employ the teaching styles of

Behaviour Analysis, which uses teaching methods such as errorless teaching and error correction, as well as different levels of prompting according to what the learner needs at that stage of skill acquisition. This is known as “least necessary” prompting or, in other teaching terminology, scaffolding. This allows the tutor to be able to probe the skill without any prompting to see where the learner is in their ability to complete this task, and then add the level of prompt necessary to then begin fading prompts when progress is being made. Different learners need different prompts and may require prompt fading to be more gradual than others, as well as maybe requiring more opportunities for learning to acquire this skill. These prompts also allow for the learning process to be as stress-free as possible for the learner so that they have good experiences with these tasks and don't engage in behaviours that challenge that may impede their learning.

Results

The independent skills being currently taught to the primary school pupils consist of clothing related skills (putting trousers on/off, pulling trousers up/down, putting jumpers on, putting shoes on, fastening/undoing a zipper), hygiene related skills (tolerating teeth brushing, washing hands as a skill itself, then washing hands when appropriate, i.e. after the toilet or when messy), and community skills (walking appropriately with a tutor/caregiver).

The skills being currently targeted with the Post-19 learners include hygiene skills (cutting/cleaning nails, brushing teeth, swallowing saliva when needed), community skills (paying in a shop, road safety, knowing personal details, using CityMapper, travelling within the community), domestic skills (budgeting, planning a week, following a recipe/cooking, healthy living/exercise), and work experience.

As shown, there are a few overlapping skills being developed, primarily targets relating to hygiene, but it is also clear how skills that are being introduced at the beginning of their education are being advanced upon later in their education, primarily the community skills. From learning how to walk safely and appropriately in the community with a trusted adult as a child to then learning how to navigate the

community as an adult allows for confidence to be built up in an intimidating, and potentially dangerous, area of life that involves the consideration of lots of moving parts. Towards the end of my time working with my key student at the primary school, he was working on transitioning from being transported in a pushchair while in the community, to being able to walk independently for extended periods of time. He had no physical impairments that hindered him from walking as he walked all day at school, it seemed like it had become a comfort aspect for him to be in the safety of a buggy when out in the world. By the end of the term, he was making great progress with walking without the pushchair for extended periods at a time, and his parents were really beneficial in increasing his confidence and practicing walking outside of school hours. He will then be in a good position to begin to learn about community safety, working up to the skills the adults work on.

Six out of the eight primary school pupils have independent skills targets relating to clothing items, four of which involve putting on and taking off trousers. Beginning with the functionality of this task to allow the child to be able to go to the toilet independently, or even to complete the first step in helping their caregiver to change their nappy, to being able to put their trousers on from standing up as opposed to needing to sit down to put them on. This is functional in situations where there are no appropriate seating options when getting dressed, such as in the group changing rooms when going swimming, and it also helps to develop balance and coordination when considering gross motor skills. When working with my key student on this kind of target, he found it frustrating to begin with and when being pushed to complete the next step after mastering the previous one, but when realising he could do it, he was able to complete the steps independently. It took approximately the length of a term (12 weeks) to progress from his initial target of pulling up and down his trousers to change his nappy, to then being able to fully take off and put on his trousers independently. Crucially, he was able to generalise this skill to home with his parents as well as at school with his tutors. This particular student was able to benefit from reinforcement techniques very well as he was highly motivated by tangible objects (animal toys) which are easy to be given after completing the task. However, other students that aren't reinforced as easily may find it more difficult to learn skills as quickly as they aren't motivated by as many things. One student, for example, was struggling to make progress with tolerating teeth brushing, possibly for adverse sensory reasons that weren't outweighed by any reinforcement that we had identified.

Discussion and conclusion

These findings from comparing the ongoing targets relating to independent living skills being developed by primary school aged autistic children and the autistic adults accessing Post-19 education show that these skills are continuously being learned and that the skills learnt at a younger age are an important basis to be built on for more age-appropriate skills later in life. It is important to be consistent with the teaching of these skills as a higher level of self-sufficiency is vital to an individual's confidence and also helps those around them if they are equipped with the basic skills to look after themselves. Learning is a frustrating process as it is more effortful when we are unable to do something first try or when someone has been doing it for us and then wants to change that to make us do it ourselves. However, these short-term frustrations lead to long term benefits. The right prompt levels can help to reduce behaviours that challenge and consistency in learning can help make the task

less intimidating, especially when done as often as possible in as many settings as possible.

Independence skills are key to be taught in education settings as part of education and learning plans to ensure that these skills are acquired to allow for the individual to live as independent of a life as possible, ensuring their quality of life when they inevitably leave education. Parents are also important to the consistent learning of the pupil when not at school, especially emphasising the communication and collaboration between the tutors at school working with the pupil. This helps to clarify the skill being worked on and how it is being taught, as well as increasing the likelihood of the generalisation of that skill.

I believe the next step to investigate would be the most effective prompting procedures for independence related skills, and the initial skills that are needed to precede the target skill. This includes how a skill can be broken down into constituent parts to make learning more achievable by building up to the end goal, it may also make learning occur more quickly. It would be useful to track students over time working on the same skill to see how progress develops between different students, and how they respond to different prompting procedures or ways of teaching.

Overall, independence related skills are very important to the overall learning and wellbeing of autistic individuals, and a clear trajectory can be seen from the skills that they are developing early in their education to those that are being built on and acquired at the end of their education.

References

- Ayres, K.M., Lowrey, K.A., Douglas, K.H. and Sievers, C. (2011) I can identify Saturn but I can't brush my teeth: What happens when the curricular focus for students with severe disabilities shifts. *Education and training in autism and developmental disabilities*, pp.11-21.
- Bal, V.H., Kim, S.H., Cheong, D. and Lord, C. (2015) Daily living skills in individuals with autism spectrum disorder from 2 to 21 years of age. *Autism*, 19(7), pp.774-784.
- Carothers, D.E. and Taylor, R.L. (2004) How teachers and parents can work together to teach daily living skills to children with autism. *Focus on autism and other developmental disabilities*, 19(2), pp.102-104.
- Faloon, B.J. and Rehfeldt, R.A. (2008) The role of overt and covert self-rules in establishing a daily living skill in adults with mild developmental disabilities. *Journal of Applied Behavior Analysis*, 41(3), pp.393-404.
- Fentress, G.M. and Lerman, D.C. (2012) A comparison of two prompting procedures for teaching basic skills to children with autism. *Research in Autism Spectrum Disorders*, 6(3), pp.1083-1090.
- Green, S. A., & Carter, A. S. (2014) Predictors and course of daily living skills development in toddlers with autism spectrum disorders. *Journal of autism and developmental disorders*, 44, 256-263.
- Milley, A. and Machalicek, W. (2012) Decreasing students' reliance on adults: A strategic guide for teachers of students with autism spectrum disorders. *Intervention in School and Clinic*, 48(2), pp.67-75.
- Pillay, Y., Brownlow, C. and March, S. (2022) Transition approaches for autistic young adults: A case series study. *Plos one*, 17(5), p.e0267942.
- Taconet, A.V., Lombardi, A.R., Madaus, J.W., Sinclair, T.E., Rifenburg, G.G., Morningstar, M.E. and Langdon, S.N. (2023) Interventions Focused on Independent Living Skills for Youth With Intellectual Disability or Autism Spectrum Disorder. *Career Development and Transition for Exceptional Individuals*, p.21651434231152200.