

Case-study: Out of isolation and the role of negative reinforcement for caregivers

Authors: Virge Connery (BCBA), Marilena Norton (BCBA), Paul Maher, and Steven Dooley

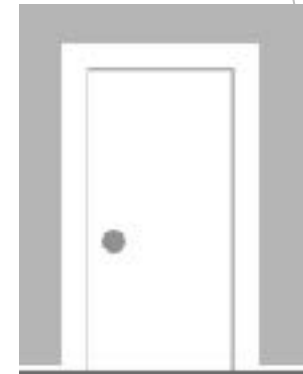
*Psychological Society of Ireland Division of Behaviour Analysis Annual Conference –
2020*

Social interactions

- ▶ Autism Spectrum Disorder (ASD) is often referred to as a ‘communication disorder’ and often characterised by a lack of interest in social interaction (American Psychiatric Association, 2013).
- ▶ However, as highlighted by Deckers, Muris and Roelofs (2017) it is plausible that many individuals with autism seek social interaction but lack the skills and/or require specific circumstances to interact with those around them in a socially appropriate manner. This difficulty often leads to those with autism to be labelled as anti-social, with those around them assuming that they do not want to interact at all or seen as an escape behaviour.
- ▶ As noted by Harper, Iwata and Camp (2013) an ideal treatment program for individuals who exhibit social avoidance might focus on a repertoire of social interaction that includes approach as well as avoidance responses.
- ▶ Severe problem behavior (e.g., self-injury and aggression) remains among the most serious challenges for the habilitation of persons with intellectual disabilities and is a significant obstacle to community integration (Rooker, 2015).

Client Overview

- ▶ Alex is a 18-year-old young man with a diagnosis of Autism Spectrum Disorder, Moderate Intellectual Disability and chronic pancreatitis, he uses a PEG for medication.
- ▶ He stopped attending school in early 2018 and isolated himself in his bedroom.
- ▶ Alex engaged in high levels of aggression towards his mother on a daily basis, especially when she was attending to his self-care and medical needs which are unavoidable.
- ▶ Alex's mother would wear a pair of sunglasses, so that Alex could not read her facial expression as this could lead to aggression.
- ▶ In order to maintain her safety during aggressive incidents, Alex's mother would have to lock herself in her bedroom.
- ▶ Alex refused to leave his home, interact with other people and isolated himself in his bedroom for over 6 months.



Negative Reinforcement

- ▶ Alex's case study presents an adolescent who began to display a number of inappropriate behaviours to those around them, including some very severe aggression.
- ▶ The function of this behaviour was incorrectly assumed to be escape from interaction and the family resulted in withdrawing interaction with Alex due to the effect of negative reinforcement on them.
- ▶ The principal utility of Functional Behaviour Assessment is to guide the development of interventions for challenging behaviour but the outcome assessments may not be always clear (Beavers, 2013).
- ▶ For Alex, the family's attention lead to aggression and thus the individual became extremely isolated.
- ▶ A behavioural team re-evaluated the function of the behaviours, concluding that the individual was in fact engaging in these behaviours in order to access a particular type of attention from those around him.

Negative reinforcement is a term described as stopping, removing, or avoiding a negative outcome or aversive effect (Cooper, Heron, & Heward).

Target behaviours

Adaptive behaviours

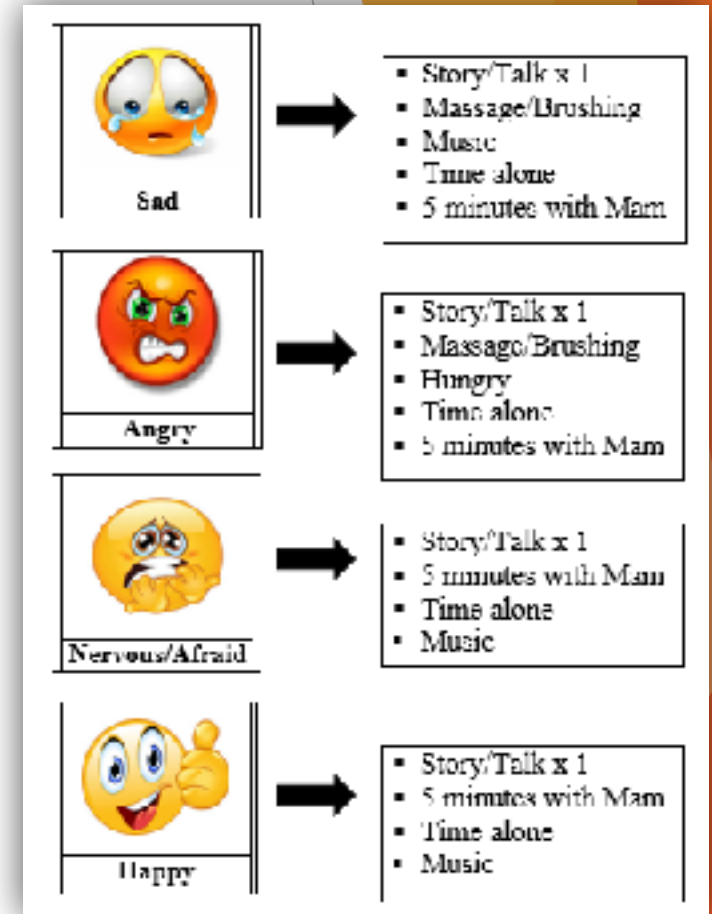
- 1) Increase tolerance levels of other people in his environment and any level of direct interaction.
- 2) Tolerate change and other people's choices.
- 3) Engage in his local community by leaving his house to go for a walk, shopping and manage his finances at the Post Office.
- 4) Desensitisation to trigger words e.g. *“Now, So, Finished, Yesterday, Today and Tomorrow”*.
- 5) Increase daily living skills:
 - ▶ Engaging in personal hygiene routines
 - ▶ Contributing to the upkeep of his home.
 - ▶ Assist in meal/snack preparation.

Maladaptive behaviours

- 1) Self-Injurious Behaviours
 - ▶ Head hitting, arm biting hitting leg, foot stomping.
- 2) Physical aggression
 - ▶ Grabbing, hair pulling and hitting
- 3) Loud vocalisations.
 - ▶ Inappropriate requests for attention
 - ▶ Repetitive stories about his past hospital visits.
 - ▶ Repetitive requests for therapists names.

Behaviour strategies

- ▶ Parent training – reactive strategies for problem behaviours and aggression.
 - ▶ Alex was informed that you are leaving the room and that he needs to sit on the couch before you can return.
- ▶ Choice boards – in session activity boards.
- ▶ Social reinforcement provided on a regular basis.
- ▶ Scripted responses and redirection – when repetitive requests for therapists names were made, therapists would redirect back to the activity and put repeating the names on extinction.
- ▶ Tolerating change – therapists introduced their choice of activity for 10-15 minutes in each block session.
- ▶ Waiting and denied access to “Stories/Talk” – stories /talk with Therapists put on extinction. A choice board was provided to Alex.
- ▶ **Note:** Stories/Talk – Alex will request stories about his hospital visit and getting his tubes inserted. However, he would want the exact story that his mother would tell him and any variation in the delivery would result in a behaviour escalation.



Covid-19

- ▶ Due to Alex's underlying health condition and as per government advice, his family restricted their movements and chose to minimise the number of people Alex came into direct contact with. Therefore he cocooned and direct sessions were not feasible.
- ▶ Sessions were conducted with Alex over zoom.
- ▶ An activity pack was posted to him on a weekly basis. These included preferred activities such as:
 - ▶ Word searches
 - ▶ Dot to dot activities
 - ▶ Colouring sheet
- ▶ Therapists were provided with the same packs. The session targets included:
 1. One step instruction – bring the iPad to Mum.
 2. Tolerating the behaviour therapists choice of activity.
 3. Desensitisation to trigger words such as: “Now, So, Finished, Yesterday, Today and Tomorrow.”



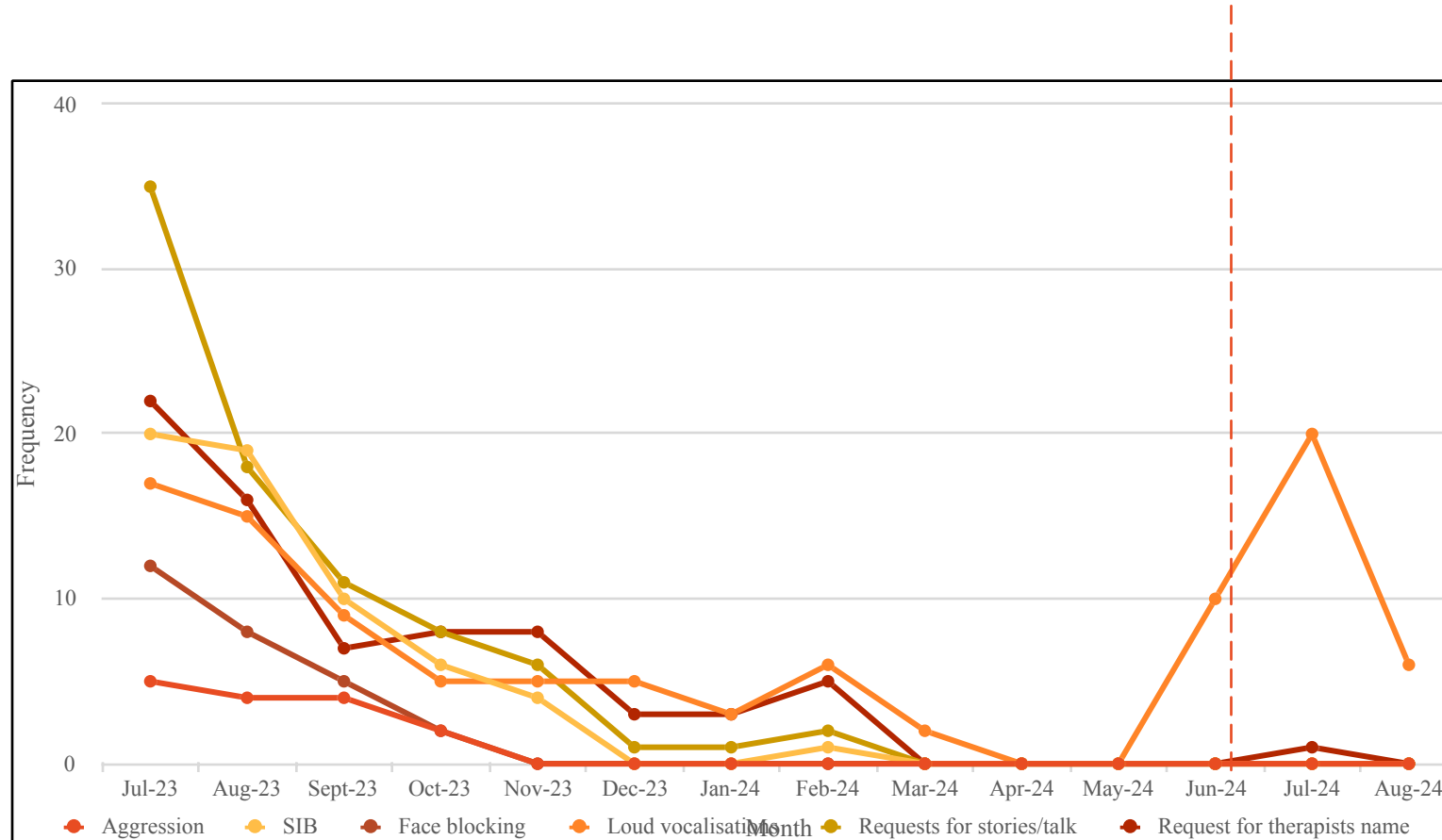
Covid-19 Data

- ▶ On two occasions, Alex used appropriate communication skills to call his mother to help with technical difficulties on the iPad.
- ▶ Zoom session duration increased.

March & April 2020	May & June 2020	July & August
30 minute sessions	45 minutes sessions	55 minute sessions

- ▶ Alex continued to tolerate other peoples choice when presented with two activities.
- ▶ Alex emitted one loud vocalisation “No”, when prompted to bring the iPad to his mother. As the therapists were not present to assist with any problem behaviours/incidents. He was prompted to say “No” in a nice indoor voice which he complied with.

Reduction in Behaviours of Concern



- ▶ On June 5th 2020, we introduced a task demand (bring iPad to Mom) at the end of the session. Alex engaged in a single loud vocalisation and therapists utilise error correction procedures to use a “nice voice”

Overall outcomes

- ▶ The session duration was increased from 1 hour to 3 hours and Alex was introduced and tolerated four different Therapists.
- ▶ Alex would greet family and Therapists when entering and exiting his home.
- ▶ Alex can tolerate 1-2 family members in the sitting room and they can now collectively watch a movie.
- ▶ Tolerated Therapists choice of activity, twice for up to 15 minutes.
- ▶ Tolerated a Therapist sitting in close proximity to him on the couch and a second Therapist entering the room to engage in a 10-15 minute activity.
- ▶ With verbal prompts, Alex would go to the kitchen and get his snack/meals. He would return his empty utensils when finished. Alex would bring in his chosen activities into the sitting room and tidy up after himself.
 - ▶ *The intervention package resulted in a significant decrease in aggression, SIB and loud vocalisations, and a positive return to social interactions, including leaving their home by foot for the first time in nearly two years. Alex went shopping for art materials in Tesco on 3 occasions. Most importantly, improved quality of life for Alex and his family.*



***Additional
future targets:
Prepare Alex
for the
transition to
Adult Day
Service.***

References

- ▶ American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th ed. Arlington, VA: American Psychiatric Association; 2013.
- ▶ Beavers, G. A., Iwata, B. A., & Lerman, D. C. (2013). Thirty years of research on the functional analysis of problem behavior. *Journal of applied behavior analysis*, 46(1), 1-21. doi.org/10.1002/jaba.30
- ▶ Cooper, J. O., Heron, T. E., & Heward, W. L. (2007). *Applied behavior analysis* (2nd ed.). Upper Saddle River, NJ: Prentice Hall.
- ▶ Deckers, A., Muris, P., & Roelofs, J. (2017). Being on your own or feeling lonely? Loneliness and other social variables in youths with autism spectrum disorders. *Child Psychiatry & Human Development*, 48(5), 828-839. DOI 10.1007/s10578-016-0707-7
- ▶ Harper, J. M., Iwata, B. A., & Camp, E. M. (2013). Assessment and treatment of social avoidance. *Journal of Applied Behavior Analysis*, 46(1), 147-160 doi.org/10.1002/jaba.18
- ▶ Rooker, G. W., DeLeon, I. G., Borrero, C. S., Frank-Crawford, M. A., & Roscoe, E. M. (2015). Reducing ambiguity in the functional assessment of problem behavior. *Behavioral interventions : theory & practice in residential & community-based clinical programs*, 30(1), 1-35. https://doi.org/10.1002/bin.1400

Thank you for your time!
Please feel to get in touch with
any questions:
hello@behaviourdetectives.ie