Busy Analytical Bee

NEWSLETTER February

Welcome to the February edition. In this edition, I review the Behaviour Analytical research for Pica. There are some ideas for including targets in a train set activity (NET). I celebrate the career of the inspirational Ryan O'Donnell, MS, BCBA. There is a study tip, product suggestions for Direct Instruction and some events for you to check out. Have a great month.

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BEHAVIOURAL INTERVENTIONS FOR PICA

Pica is the ingestion of non-edible items. BEAT describe this as "a feeding disorder in which someone eats non-food substances that have no nutritional value, such as paper, soap, paint, chalk, or ice. For a diagnosis of pica, the behaviour must be present for at least one month, not part of a cultural practice, and developmentally inappropriate". Mace & Knight (1986) stated that this behaviour was highly prevalent with people with developmental disabilities and Piazza et al (2002) stated that it was "exhibited by 25% of individuals" with developmental disabilities. In addition Fisher et al (1994) stated that "one of the few investigations that included follow-up data, Foxx and Livesay (1984), reported that 3 of 4 children treated for pica with overcorrection had died within 10 years. In contrast, the 4 children treated for problems other than pica were still alive". This emphasises the social importance of reducing pica behaviours as it can have a significant detrimental effect on the person's health.

Many different procedures have been adopted by researchers throughout the years. Mace & Knight (1986) investigated further the relationship between rich environments (competing reinforcement) and levels of Pica. Previous research reported that interaction reduced Pica because it competed, although Mace & Knight proposed that levels of interaction reduced Pica because, no attention or being alone served as a discriminate stimulus for successful Pica. When people attended to them, they were more likely to receive punishing consequences following Pica (reprimanded, blocked, etc.). The participant in this study regularly wore a face guard, which aim to prevent his opportunities to engage in Pica behaviour. This participant would rip pieces from their own clothing to digest if unable to access other items. In the first baseline (guard worn) Pica occurred on average 89.0% of intervals, second baseline

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51.4% of intervals. The guard, however, impacted his ability to socialise and some daily activities. The researchers found lower rates of pica when there were frequent interactions and the guard was removed. The researchers introduced the intervention which consisted of limited interactions and the face guard removed and the rates of pica slowly decreased across sessions (from 44% to 13% of intervals in the first implementation and then an average of 14.8% when reintroduced).

Response blocking was also investigated by Hagopian & Adelinis (2001), and found that it was a difficult procedure to implement as aggression would occur. The participant was a 26-year-old man, and when they blocked his Pica (including ingesting paper, pens, paint chips, faeces), the participant would become aggressive, and they would stop blocking his behaviour for 30 seconds. They used blocking with redirection (to popcorn) and this was more successful and lower levels of aggression and (non-edible) pieces eaten (M= 2.9 pieces, vs 48.8 pieces in baseline) was observed.

Piazza, et al (2002) manipulated the effort involved in Pica, by placing items on the floor and table (low effort)

or in plastic containers (high effort). Pica items for their three participants included candles, playdough, uncooked food, rocks, soap, etc.. They also gave alternative edible item under the same criteria and mixed the conditions. They found that in their experiment, if an alternative was available then the levels of pica were lower than baseline (average of 4.6 responses across 3 participants) or dropped to zero. This was regardless of whether the response effort for pica was low or high.

This research gives important considerations for the development of interventions focusing on reducing Pica. Reducing Pica is of social importance as it can be extremely harmful to the person due to the items they may consume, and can even cause death. Punishing procedures can be less desirable as this can cause undesirable side effects, including aggression. The research shows that offering alternative appropriate items, non-contingently, and increasing the effort of engaging in Pica, can be an effective procedure. Also giving non-contingent attention and interacting with the person can be effective, but may be difficult to provide consistently and Pica may return when attention removed. Speak to a Behaviour Analyst for support with developing an intervention to reduce Pica.

BEAT, Pica, Retrieved from https://www.beateatingdisorders.org.uk/types/other-feeding-disorders/pica

Fisher, W. W. Piazza, C. C. Bowman, L. G, Kurtz, P. F., Sherer, M. R., Lachman, S. R. (1994) A preliminary evaluation of empirically derived consequences or the treatment of Pica, *Journal of Applied Behavior Analysis*, **27**, 447-457

Foxx, R. M., & & Livesay, J. (1984). Maintenance of response suppression following overcorrection: A 10-year retrospective examination of eight cases, *Analysis and Intervention in Developmental Disabilities*, **4**, 65-79.

Hagopian, L. P. & Adelinis, J. D. (2001). Response blocking with and without redirection for the treatment of Pica, *Journal of Applied Behavior Analysis*, **34**, 527-530.

Mace, F. C., & Knight, D. (1986). Functional Analysis and treatment of severe Pica, *Journal of Applied Behavior Analysis*, **19**, 411-416.

Piazza, C. C., Roane, H. S., Keeney, K. M., Boney, B. R., & Abt, K. A. (2002). Varying response effort in the treatment of Pica maintained by automatic reinforcement, Journal of Applied Behavior Analysis, 35, 233-246.

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EVENTS

Daisy Chain Educational Services Ltd are holding a variety of training courses in Whiteley, Hampshire. The courses are entitled Autism Specific Teaching—Intensive Teaching and Natural Environment Teaching (13th April 2019), and Promoting communication for non-vocal students (3rd August 2019). The courses cost £150 each, per person. Email Daisy Chain directly to book your place, or telephone them on 07813932363.

Vincent Carbone is coming over to the UK in March! The first workshop (6th and 7th March, 9am-5pm) is "Skinner's analysis of Verbal Behaviour in ABA treatment programs for learners with Autism" and the second workshop (8th March, 9am-5pm) is "The benefits of using the Essential For Living assessment … ". The event will be held in Edinburgh and CEUs are available for BCBAs and BCaBA for full attendance, for more information about this event email info@carboneclinic.co.uk, or check out the Carbone Clinic website.

Beyond Autism are offering a 4 day workshop 'Introduction to Applied Behaviour Analysis and Verbal Behaviour (ABA/VB). This is running on 4 Fridays in March. (1st, 8th, 15th and 22nd March) and costs £250 per person. To book your place, visit the website.

The Experimental Analysis of behaviour Group (EABG) conference is happening this year! The event is set to happen on the 15 and 17th of April this year in London. Watch this space for more information, as booking will be opening soon.

PRODUCTS

This months wish list contains books you will find helpful for Direct Instruction. Direct Instruction is a model, designed by Siegfried Engelmann that involves teacher led activities, where child engage in choral responding and there is a fast pace and guided practise.

TERMINOLOGY

Parsimony: This is important in developing and assessing interventions. Parsimony ensures that the simplest explanation is ruled out, before considering more complex ideas. This means that behaviour Analysts consider medical issues, and assess the function of the behaviour.

PEOPLE WHO INSPIRE US

This month we are celebrating the career of Ryan O'Donnell, MS, BCBA, aka Ryan-O, aka The Daily BA. Ryan-O is famous for pushing the envelope on Behaviour Analysts and makes thought-provoking and informative videos. These videos encourage professionals to think more deeply about their practise and knowledge of Behaviour Analysis. Ryan-O studied at the University of Nevada-Reno where he completed a Bachelors degree and majored in Psychology and also had a position as a research assistant in the Behaviour Analysis Programme. He then received his Masters in Applied Behaviour Analysis from Florida Institute. In addition to supporting people with disabilities and providing Behaviour Analytical services, he is also involved with many media outlets and other collaboration and projects This includes The Daily BA, 'Why We do What we Do' Podcast and the Next Generation Revolution Summit. If you want to learn more about Ryan-O, you can find him on LinkedIn, Facebook, YouTube, or on the Daily BA: Who is Ryan-O? Page.

STUDY TIPS

There are always interesting clips of animals and people on social media (e.g., Facebook, Instagram, YouTube, etc.). When you come across these videos put your skills into action! Find the ABC, operationally define the behaviour, consider what's maintaining or reducing the behaviour. Share the video on a study group on Facebook and see if other people had the same ideas as you!

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NATURAL ENVIRONMENT TEACHING (NET) IDEA

A great NET idea is using train sets. Building a train set can be a great visual performance (VP-MTS*) activity, which you could also provide a visual aid for your client to copy (play 12a). This task incorporates opportunities for requests for more train track (Mand 6a), or if given the set with a piece missing to request a missing item (mand 6c). This also supports hand eye co-ordination and motor skills by connecting piecing together (VP-MTS 6a, 8e). There is also the symbolic play element of moving trains on the tracks (play 11M). This could involve motor imitation by modelling certain movements with the train and stating "copy this" (MI** 6d) or pushing the train without a model (VP-MTS 4b). You could also use other objects, for instance a small cardboard box, to pretend to be a train to begin developing symbolic play (play 8M). If you have some characters you could further the imaginative play by incorporating role play. This activity allows for opportunities for labelling objects or parts of the train (tact 6M). Also you could introduce conversation skills, for instance the train goes… "choo choo", what does a train go on? "track" or tell me some other vehicles? (IV† 6a, 9e, 9M).

Preceding skills reference to the VB-MAPP Assessment tool:

Sundberg, M. L. (2008) Verbal Behavior Milestones Assessment and Placement Program: The VB-MAPP. Concord, CA: AVB Press.

*VP-MTS: Visual Performance Match-to-Sample. **MI Motor Imitation †IV Intraverbals (conversation skills)

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Next month we're looking at *Clicker training in sports*, so be sure to subscribe so you receive the next exciting edition.

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