Busy Analytical Bee

NEWSLETTER December

Welcome to the December edition. In this edition I discuss research around sleep problems. I am also very excited to welcome Jonathan Tarbox, who has completed the interview for this edition, the final edition for 2019. Also, I discuss cake decorating activity (NET), the verbal operants (Terminology), resources for the Level 1/Early learner assessments (products) and much more! Hoping you all enjoy the holidays.

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SLEEP PROBLEMS IN CHILDREN

Many parents struggle with bed times. It can be a difficult time, as many children attempt to delay and avoid going to bed, have trouble staying asleep, or staying in their own bed. This is a common issue that parents may have to tackle at some point in their child's upbringing. And it appears to be a pandemic, and is affecting parents across Western society. Both the BBC and the Guardian have reported, one saying that sleep problems in children have tripled and the other suggesting it is a "hidden health crisis" (respectively).

During sleep, our bodies go through stages, including light sleep, Rapid Eye Movement (REM) and deep sleep stages. Melotonin is a hormone our body produces as it becomes dark, and this aids sleep onset. Typically younger children require more sleep, for example three -year olds require 12 hours, although this decreases as children age. Visit Sleep Foundation to learn more about this. Poor sleep is linked to poor cognitive functioning, obesity, and poor mental health. It is has a direct impact on parents as they have also have disturbed sleep so are at risk too. In addition, there is a higher link between sleep problems and children with asthma, Attention Deficit Hyperative Disorder (ADHD) or a learning disability.

Behaviour Analysts have investigated supporting parents with their children's sleep issues. A variety of approaches have been adopted including delayed and faded bedtimes and response cost (Piazza and Fisher (1991). During baseline they assessed when sleep onset occurred and during intervention sent the child to bed 30 minutes later than the time of sleep onset during baseline. They would either increase or decrease the bedtime the following day depending on when sleep onset occurred the previous night. The aim to reach an appropriate bedtime for that child. The response cost involved the child being kept up for an hour following waking (during the night). In the results, they observed improvement in intervals of appropriate sleep. For one participant the percentage of appropriate sleep during baseline was 78% on average, and 87% on average during intervention. In addition, the researchers observed a decrease in inappropriate sleep, and challenging behaviours (in and out of bed for one participant and getting into parents bed for another participant). This procedure was replicated by Ashbaugh & Peck (1998) with a two-year-old and the results showed a reduction in number of intervals with disturbed sleep when intervention was in effect. This further supports the efficacy of this intervention.

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For two typically developing children, a bedtime pass was explored (Friman et al, 1999). This involved the child being given a pass with their name on it, which they could exchange for an interaction with their parents, to obtain a drink, etc. following being sent to bed. Once they used the pass, they had to relinquish it until the next bedtime routine, the following day. The re-

sults showed a reduction in the challenging behaviours (i.e., crying and getting out of bed). When the intervention was removed, and increase of behaviours was observed, and when the procedure was reintroduced the behaviours decreased again. This shows that this procedure was effective at modifying the behaviours around bedtime. This intervention was further supported by Freeman (2006) who used the bedtime pass with three-year-old children. The results showed a reduction in challenging behaviours around bedtime. This also demonstrates that this procedure can be effective with very young children.

These previous studies did not include a functional assessment of the behaviours associated with bedtimes, which Jin et al (2013) suggest is fundamental to a Behaviour Analytical approach. It is common practise that Behaviour Analysts conduct a functional analysis prior to developing interventional packages, although in reference to previous research in this area, the authors noted "the prescription of these tactics is not necessarily assessment based or predicted on idiosyncratic variables that maintain sleep problems". They conducted a functional assessment for each of their three participants, and recommended interventions based on the results. They observed a decrease in sleep onset delay and the behaviours that interfered with sleep in all participants. Also, two of these participants had their medications for sleep reduced.

When tackling sleep or challenging behaviours that occur during betimes, it is important to conduct a functional assessment. All the procedures have been demonstrated to be effective for reducing challenging behaviours around bedtime. The results from the functional assessment will inform your decision regarding which intervention could be most successful for you. Consult a Behaviour Analyst to help you develop a sleep/bedtime intervention.

Ashbaugh, R. & Rickert, V. I. (1998). Treatment of sleep problems in a toddler: A replication of the faded bedtime with response cost protocol. Journal of Applied Behavior Analysis, 31, 127-129.

BBC, (2017, March, 4). Sleep problems mounting in children. Retrieved from: https://www.bbc.co.uk/news/health-39140836

Freeman, K. A. (2006) Treating bedtime resistance with the bedtime pass: A systematic replication and component analysis with 3-year-olds. Journal of Applied Behavior Analysis, 39, 423-428.

Friman, P. C., Hoff, K. E., Schnoes, C., Freeman, K. A., Woods, D., & Blum, N. (1999). The bedtime pass: An approach to bedtime crying and leaving the room. Archives of Paediatrics & Adolescents Medicine, 153, 1027-1029.

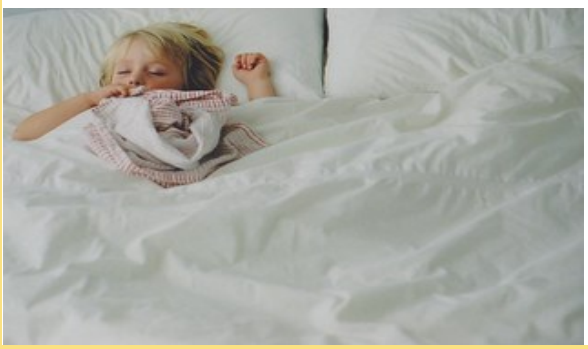
Guardian, (2018, September, 30). Children's lack of sleep is a hidden health crisis. Retrieved from: https://www.theguardian.com/lifeandstyle/2018/sep/30/childrens-lack-of-sleep-is-hidden-health-crisis-experts-say

Jin, C. S., Hanley, G. P., & Beaulieu, L. (2013). An individualised and comprehensive approach to treating sleep problems in young children, Journal of Applied Behavior Analysis, 46, 161-180.

Patient. (2019, Feb, 26). Sleep Problems in Children. Retrieved from: https://patient.info/doctor/sleep-problems-in-children

Piazza, C. C., & Fisher, W. (1991). A faded bedtime with response cost protocol for treatment of multiple sleep problems in children.

Sleep Foundation. Children & Sleep. Retrieved from https://www.sleepfoundation.org/articles/children-and-sleep



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EVENTS

Child Autism UK offer a variety of events for extending your skills and knowledge. These include an introduction ABA Tutor Training, Advanced ABA Tutor Training, Lead Tutor Training and more! Learn more on their courses page.

Beyond Autism have some training dates for Interactive Storytime Workshop. This focuses on teaching skills to make story time engaging and maintaining attention to ensure you can embedded those important skills. Dates include 13th January and 3rd February. It costs £80 per person.

Wanting to learn more about Acceptance and Commitment Therapy (ACT)? Contextual Counselling are holding two events next year. A webinar with Richard Bennett on the 27th February, and a workshop in London with Russ Harris on 23rd and 24th March. Learn more.

Interview

Dr. Jonathan Tarbox

This month I am very excited to invite Dr Jonathan Tarbox. He currently holds a position at the University of Southern California as the program director of the Master of Science in Applied Behaviour Analysis Program. He is also director of Research at FirstSteps for Kids. He has published many books and peer-reviewed journal articles, and additionally served on the editorial boards of many journals, including *Behavior Analysis in Practice*. He is passionate about teaching complex skills to individuals with autism. Welcome Jonathan, firstly can you tell us a little bit about yourself and how you became interested in Applied Behaviour Analysis (ABA) and children with Autism Spectrum Disorder (ASD)?

I stumbled on ABA in 1998 or so, in a small farm house in rural Vermont, while I was attending a small liberal arts school called Marlboro College. A mom of a child with autism pulled her kid out of school and created an ABA program in her living room. I was one of the random college kids she hired to work as an ABA therapist with her son. Her courage and dedication totally inspired me and changed my life. I then started looking around for jobs in ABA and found the New England Center for Children, got an entry level job there and got amazing training on how to do skill acquisition work with kids with autism. I then had the great fortune of getting the opportunity to work at the Kennedy Krieger Institute, doing functional analysis and treatment of extreme challenging behaviors. At Kennedy, I learned how to do research in ABA and furthered my love for the science and for making a difference for families who the rest of the world had given up on.

You have written many research papers and informative books across a variety of topics, can you tell us a little bit about this?

What's there to say, I'm a science geek! I love data and I love that we can use the scientific method to turn hope into procedures that actually work to make a difference and help people thrive. Creating a context for others to be their most incredible is the guiding value in my career and that's what makes all of the work required for writing worth it. It's not worth it for the money and it's empty if one is just doing it for the recognition.

What are you most passionate about in your work and what Inspires you most when working with children with ASD?

Hope. Compassion. Courage. I love to see a mom of a kid with autism accomplish something she never thought possible and then see the effect it has on her child, who then also accomplishes something that seemed impossible before. I love to see peoples' lives open up, become more flexible, and intentional. When parents let go of old, tired, and unsuccessful ways of managing behavior and focus on positive reinforcement-based ways of managing behavior and just overall focusing on how they can support their children and one another, it's not just the behaviour that changes. The effect of supporting one another in a family and treating one another well is infectious and the whole family benefits. ABA just works and I never get tired of seeing other peoples' efforts succeed.

You also work within an Acceptance and Commitment Therapy (ACT) framework, can you tell us a little about you work using ACT?

ACT is about choosing to do hard stuff in the service of what we truly care about more often, and choosing to avoid discomfort less often. It's about dropping our struggles with our own unhelpful thoughts and feelings and working on just being willing to experience whatever is happening here and now, regardless of whether it is pleasurable or uncomfortable. Most importantly, it's about getting real with ourselves about what we, individually, truly care about, and making commitments to change our behaviour in overt and measurable ways to move toward that. There is a much longer explanation in ABA technical jargon that time and space doesn't allow for in this context, but the short ABA version of it is that ACT procedures disrupt and

lessen the control of behaviour by unhelpful and rigid rules surrounding negative reinforcement and increase the influence that longer delayed positive reinforcers (values) have on our behavior.

Spend more time doing what we care about and spend less time struggling with what we want to avoid. Sounds good, right? Well, the data are telling us that ACT procedures help ABA staff do a better job, help parents with autism follow-through more and take care of themselves more, help kids with ASD decrease challenging behaviour and increase adaptive behaviors, and even help all of us with hard stuff like eating better and exercising more. And I have students and colleagues working on some very exciting stuff, including using ACT to help BCBAs be more compassionate in how they work with parents and staff, as well as increasing cultural humility, and preventing sexual harassment. That work is just beginning but look out for it a year from now!

That's very interesting! I love learning more about ACT and I like the description you provided! I also want to ask who are your heroes or people who have inspired you in your career?

I would say the biggest hero in my career is probably the first mom I worked with, I'll call her D. She is still with me pretty much every week. I regularly check in with her in my own thoughts (or "private events" if you want to use ABA jargon) and ask myself if I'm living up to the challenge that she set for me and for all of us. Am I showing the same level of courage and dedication to do my best work that she showed every day in her living room, while trying to create and manage an ABA program for her son? And of course, I've had a ton of great teachers since then, including Tom Redden, Bill Holcomb, Iser DeLeon, Linda Hayes, Pat Ghezzi, Larry Williams, Steve Hayes, and so many more. And then such inspirational folks at conferences, like Pat Friman, Greg Hanley, and so on. One of my all-time biggest inspirations is Shannon Penrod. She is a mom and such a beautiful person. She runs a web-based TV show called Autism Live, you should check it out. She is the kind of human I want to be when I grow up.

They are some very inspiring people! My last question is What are your hopes for ABA and ACT in the future?

I hope the science and practice of ABA continues to evolve toward being even more open, flexible, values-oriented, and compassionate. We have potentially the most powerful tools that have ever been discovered in the history of humankind; the ability to help people change their behaviour in ways that transform their lives. But we aren't always great at communicating it and we can come off as rigid and cold. That view of our field is unfortunate and it's not accurate if you've spent much time with ABA folks. We love other humans and that's ultimately why we do what we do. But it's not enough for us to know it, we need to SHOW it to others by treating others with kindness, compassion, and flexibility. The future is bright and we all have a role to play in it! Thanks for this opportunity to gush!

Thank you for completing this interview, It has been truly insightful and has been an honour.

TERMINOLOGY

This month we will review the verbal operants:

Mand—A verbal behaviour that benefits the listener, because it functions under the MO, by asking for access to something, i.e. information, tangibles, attention. A mand is a request.

Tact—A verbal behaviour that labels something within the environment. This can be an object, an action, an emotion, etc.. A tact is an expressive label (e.g., noun, verbs, etc.).

Echoic—A verbal behaviour that has point-to-point correspondence to what is heard and spoken. For instance, upon hearing the word cat then saying the word cat. Echoic relate to imitation.

Intraverbal–A verbal behaviour that does not match what is heard. The speaker response is different to the verbal behaviour of others. For example, hearing "hip hip—" and saying "HORAY!" Or if asked "What is the capital of England?" responding by saying "London". Intraverbal represents typical conversation

Textual—Is the ability to read, although this does not include comprehension skills. As Echoic behaviour there is point-to-point correspondence from the text to the verbal behaviour, for example seeing the written word 'cake' and saying "cake".

Transcription—Is writing or spelling a verbal stimulus, for instance taking dictation. This can be either written or typed.

NATURAL ENVIRONMENT TEACHING (NET) IDEA

Decorating cakes or biscuits can be a fun activity and can have a Christmas theme, as we enter the Christmas season. You can buy shop bought cakes or biscuits if you would like to extend the activity (read the November 2016 edition for more tips on baking). There are icing pens available in most supermarkets that are ideal for this, or you could make your own icing and add food colouring. Also you could add sprinkles or edible sugar decorations This activity could contrive motivation for asking for pens, different colours, help, squeeze, sprinkles, or the individual sugar decorations, etc. (Mand: 1-10M, 13M, 14M). Both you and your learner could decorate cakes and you could ask them to copy design (VP-MTS*: 11M) or label what you've drawn (Tact: 1-7M). Depending on how artistic or creative you are, this could be shapes, letters, numbers, or much more! (Writing: 11-13M). You could encourage listener responding around identifying objects or colours (LR±: 3M, 5-7M) or following instructions (LR±: 4M, 8M). This activity could also include some intraverbal skills, with fun-fill-ins around Christmas songs, "Jingle bells, jingle - " [bells] (Intraverbal: 6M)

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.

From https://flic.kr/p/qqdeMu

*VP-MTS: Visual Perceptual Skills And Matching-to-sample.

±LR: Listener Responding.

STUDY TIPS

If you're currently studying, you probably want a great way to revise, learn new information, network but save money! Applied Behaviour Analysis Forum (ABAF) is an event that occurs four times a year, they typically have two talks and opportunities to network. It's free to attend (it's in London), but there are limited places. Join the mailing list from Nick Barratt (Nick.Barratt@dimensions-uk.org) to be notified of all ABAF events. The mailing list will also keep you up-to-date with other amazing opportunities.

PRODUCTS

Conducting assessments can be quick and easy, if you have great resources that help you assess a variety of skills, generalisations and motivation. Here is a wish list of resources that are perfect for younger or early learners who may fall within Level 1 in regards to the VB MAPP* Assessment.

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

From: https://flic.kr/p/noUuFp

PEOPLE WHO INSPIRE US

This month we are celebrating of the incredible Robert Epstein. He first studied Psychology at Trinity College, and then when to Harvard to obtain his M.A. and Ph.D in Experimental Psychology, graduating in 1981. He currently holds a position as Senior Research Psychologist at the American Institute for Behavioral Research and Technology. He has been on the editorial boards for *The Behavior Analyst*, *Behavioural Processes*, *The Journal of Mind and Behavior*, and *Behaviour and Social Issues*. He has held a variety of non-academic positions including editorial, columnists and blogger posts at various magazines. He has many books, research articles and publications. He covers many interesting topics including, Behavioural Science, adolescence and parenting, internet studies, mental health and stress sexuality, motivation and more! Visit his website to learn more, or alternatively, check out his YouTube channel.

Next month we're looking at *Natural Environment Teaching (NET)*, so be sure to subscribe so you receive the next exciting edition.

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