Holland Bloorview
Kids Rehabilitation Hospital

A world of possibility

Virtual ASD Assessment
Zooming toward to the future??

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May 8, 2020

Bloorview
RESEARCH INSTITUTE

No boundaries

Conflicts to declare

- I have received funding from CIHR to study general pediatrician ASD diagnosis


Dr. Melanie Penner
@drmelpenner
Is anyone else finding telemedicine to be way more exhausting than their usual practice?
7:44 PM · Apr 21, 2020 · Twitter for iPhone
View Tweet activity
163 Retweets
2.6K Likes
Dr. Melanie Penner @drmelpenner · Apr 21
Replying to @drmelpenner
I AM TALKING SO MUCH LOUDER THAN USUAL
14
1
249

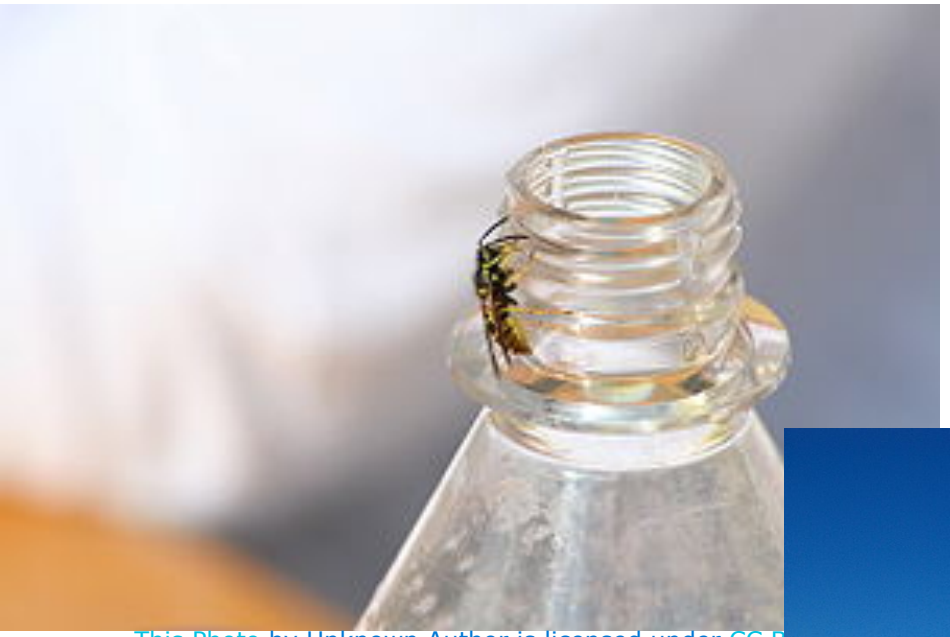
Objectives

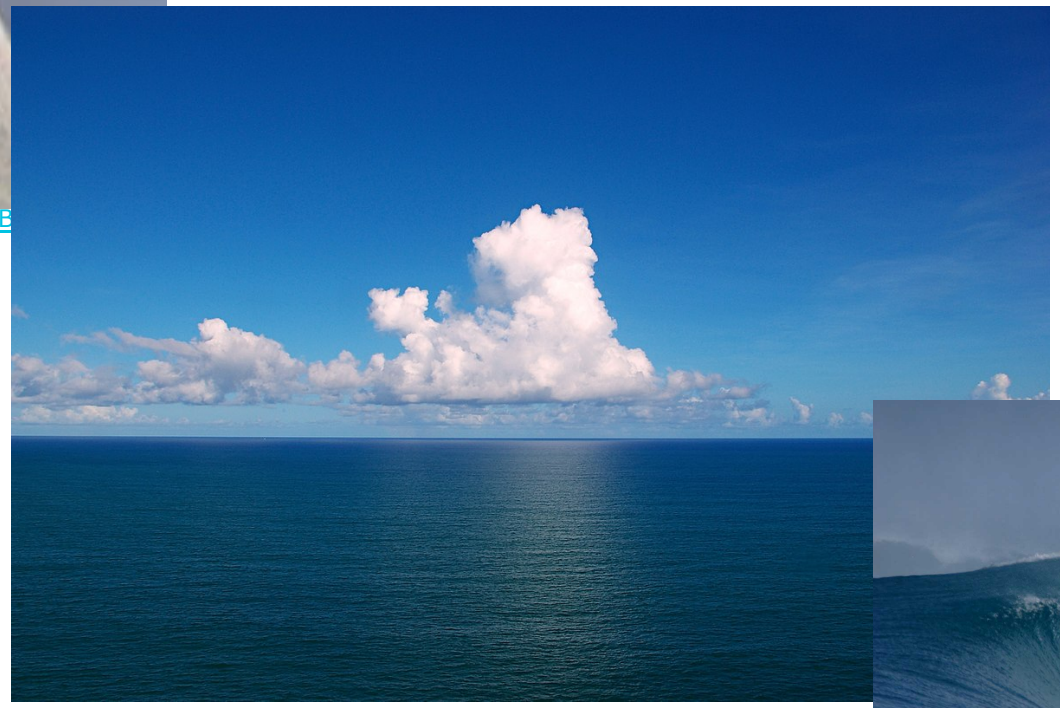
- Understand the rationale for virtual ASD assessment
- Have an approach to selecting the ‘right’ kids/families for virtual ASD assessment
- Think through the key elements of preparation
- Be aware of the limitations
- Where does this fit in a post-COVID world?

Rationale for virtual assessment

- Tools were in development prior to COVID-19
- Ability to reach families that are far away
- Overcomes some of the limitations of clinic-based assessment
  - Strange place!
  - Strange people!

Covid context: provide access to some cases that fit the criteria to help ease future access





No boundaries

Who is appropriate for virtual ASD assessment?

- First, check the specifications of your tool if you are using one
  - TELE-ASD-PEDS: max age 36 months
- ‘Clear cut’ cases – easy to rule in (may not be able to triage for this)
- English-speaking
- *Without notification of other relevant delays that need to be assessed (i.e. significant GM delay)

Who is appropriate for virtual ASD assessment?

- Families that are willing to!
- Informed consent is key – some families will not want to proceed in this way
- Build in option for both diagnostician and family to say they need to proceed to an in-person assessment

Preparing for the visit – calling the family

- We are offering families the opportunity to participate in virtual visits. Virtual visits are not much different than a visit you would have in person, though if you prefer, you can wait to have an in-person appointment at a later date. Do you have a smartphone or tablet with internet/wifi access (it will take a LOT of data)?

Preparing for the visit – calling the family

- During the first visit **(90 min)**, a developmental pediatrician will conduct an interview with you, during which they'll ask questions about your child's health and development, communication, their play, and their behaviour. During the second visit, the developmental paediatrician and speech-language pathologist will spend some time observing your child playing on their own as well as with you or another caregiver. During this visit (up to **60 min)**, it will be best if distractions are minimized so the clinicians can freely focus on watching you and your child. They will probably ask you to do some specific things during play, like call out their name or try to start a game. They may even give you specific things to say. There is then a third visit (**45 min)** during which feedback based on the assessment will be given, including recommendations and ways to support your child. If the clinicians are not able to get enough information during the virtual visits, they will recommend that you come in for a full evaluation once in-person visits have resumed.

Preparing for the visit – calling the family

- **Toys parents to have for second visit**:
  - Free play toys (e.g. blocks, cars, baby, plates and forks and other baby accessories, pop-and-play, toy phone, cause-effect music toy, book, shape sorter, etc.)
  - Requesting toys (2 of): bubbles, ball
- - balloon, wind-up toy, anything that shoots up (brainstorm with parents)
  - Snack in a container they can`t open
  - Blanket or prop for peek-a-boo

Look familiar??

Preparation continues in the first visit

- None of this works without a good history and rapport!
- Rapport tips:
  - Your camera is on
  - Need to be very up front about the purpose of assessment – evaluating whether the child has ASD
  - Lagging connection is a rapport killer!
  - Ground rules: we only proceed with diagnosis if we all agree
- OK to acknowledge that this is new and weird

Some available tools

- TELE-ASD-PEDS
  - Pro: up to age 36 months, intended for diagnosis when confident, 3-point scoring
  - Con: no published research yet
- Other option?: Systematic Observation of Red Flags (SORF) for Autism
  - Pro: has published studies supporting it
  - Con: positioned as a Level-2 screener, unclear re: dx, only up to 24 months (36?), 4-point scoring

TELE-ASD-PEDS

- Not an endorsement (yet?)
- Tasks:
  - Cause and effect play (include response to name and to JA)
  - Joint play with parent (include response to name and to JA)
  - Familiar play routine
  - Bubbles
  - Ready, set, go
  - Snack

List of toys

- Free play toys that your child enjoys (e.g., blocks, baby doll, pretend food, playdough, pop-up toys, music toys, books, shape sorters, puzzles)
- Requesting/ “Ready Set Go” activities using toys that move (e.g., cars/vehicles, bubbles, ball, wind-up toys)
- Snack in a clear container that your child cannot open (e.g., Tupperware, Ziplock bag, jar with a lid)
- Social/people game that your child enjoys (e.g., peek-a-boo with a blanket, tickles, bounces on your knee, lifting/swinging). Be prepared to try this activity in your assessment session.

Other instructions

"During the appointment, the clinician will ask you to observe, interact, and play with your child.

The activities are designed so that we can observe how your child plays with toys and communicates with you. Some of these activities will probably feel different from the way you normally interact with your child at home, or even a little silly. The clinician will ask you to use specific words or movements so that we can observe specific behaviors and interactions.

If we have trouble seeing or hearing you or your child clearly, we may ask you to tell us what your child said or where he/she was looking."

ASD-PEDS Rating Form

Dichotomous score: Is the symptom present or not (1 vs. 3) **Likert score:** 1 = symptom not present; 2 = symptom present but at subclinical levels; 3 = symptom obviously consistent with AS

Item	1	2	3	Dichotomous Score 1/3	Likert Score 1/2/3
Socially directed speech and sounds	Child often uses words or other vocalizations for a variety of social purposes (e.g. requesting, protesting, directing attention, sharing enjoyment).	Inconsistent socially directed speech.	Most of the child's sounds are self-directed. May make atypical non-word noises (e.g., "digga digga").		
Frequent and flexible eye contact	Child frequently makes eye contact with others and across a variety of activities.	Child's eye contact seems inconsistent. Gaze seems less flexible and harder to catch than expected.	Child infrequently makes eye contact. Might only make eye contact during one activity (e.g., asking for help).		
Unusual vocalizations	No unusual qualities of speech/language observed. Most of child's speech is appropriate for the child's age and developmental level.	Speech is not clearly unusual, but there are some differences (e.g., volume, slight repetitive quality of speech/language, unclear echoing, some occasional sounds that are unusual).	Child produces unusual jargon, sounds, or speech/language (e.g., undirected jargoning, speech of peculiar intonation, unusual sounds, repetitive vocalizations, echoing or repetitive speech/language.		
Unusual or repetitive play	Child plays with toys in appropriate ways (uses toys as expected).	Child's play is not clearly unusual, but child is strongly focused on some toys, routines, or activities. May sometimes be hard to shift child's attention to something new.	Child shows clearly repetitive or unusual play, such as repeatedly pushing buttons, watching how objects move, lining things up, or scrambling/dropping toys.		
Unusual or repetitive body movements	No unusual or repetitive body movements seen.	Unclear unusual/repetitive body movements. Some repetitive jumping or very brief posturing of fingers, hands, or arms that is not clearly atypical.	Child clearly shows unusual or repetitive (e.g., hand-flapping, posturing or tensing upper body, toe-walking, facial grimacing, hand/finger mannerisms) repetitive running/walking/spinning/jumping.		
Combines gestures, eye contact, and speech/ vocalization	Child frequently points and uses other gestures to communicate. Child's gestures are usually combined with vocalizations and eye contact.	Child may sometimes point or use other gestures, but less than expected. Child does not always look at you or make a sound when gesturing.	Child does not usually gesture to communicate. May sometimes reach or point, but does not usually combine these with eye gaze or sounds. May move your hand or push on your body to get help.		
Unusual sensory exploration or reaction	No unusual sensory behavior observed.	Unclear sensory exploration or reaction. May have a brief response to a sound, smell, or how something feels or moves.	Child shows sensory differences. May closely inspect objects, overreact to sounds, show intense interest or dislike to textures (e.g., touching, licking, biting, refusing to touch specific toys), or clear self-injurious behavior.		

ASD if forced to choose? Absent Unsure Present **Diagnosis issued:** _____

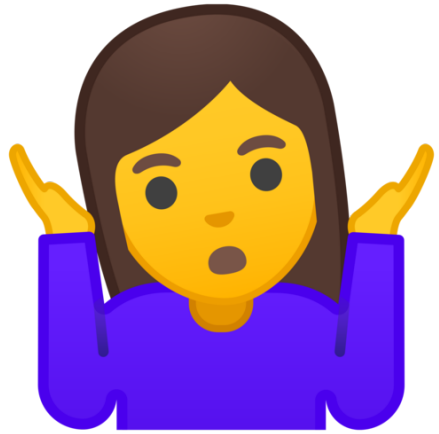
How certain are you of your diagnostic impression? 1 Completely uncertain 2 Somewhat uncertain 3 Somewhat certain 4 Completely certain

Did you recommend in person evaluation for diagnostic clarification? Yes No

My experience (N = 1)

- Toy room may not be the best spot
- Camera position and person
- Bandwidth!
  - Caution with who is hosting the Zoom & competing demands
  - Family WiFi
- Be direct
- Double check anything you aren't sure of
- Build in time after – 'best' interactive activity may not be represented (books)

Limitations – many, but no deal breakers, IMO



- Potentially narrower scope of assessment
- No corroborating info
- Physical exam – deferred
- Availability of post-diagnostic supports and services limited
- Limitations in who gets to access this diagnosis
  - –Mitigated by prospect of les
- Major role to rule-in ASD

Follow up needed!!

What does the future hold?

- Contributes to the discussion about what is ‘needed’ for ASD diagnosis in a given case
- Application to rural and remote communities with major caveats
- Incorporation into local practice for children who don’t do well in the clinic environment (i.e. significant anxiety)
- Hopefully:
  - Validation of these tools
  - Better infrastructure

Take home points

- Doing virtual assessments now can help to address anticipated demand issues in the future
- Partnership between clinicians and families – both have to feel comfortable
- Lots of preparation with the family
- Different interpersonal skill set during the observation
- Follow up is essential

“You never let a serious crisis go to waste. And what I mean by that it's an opportunity to do things you think you could not do before.”

- Rahm Emanuel