



Community of Practice Series

Occupational Therapist Community of Practice

Dated: March 30, 2023

Rajani FASD Assessment and Diagnostic Clinic Training Services: **Occupational Therapist Community of Practice**

Introduction

Rajani FASD Assessment and Diagnostic Clinic Training Services provides training, mentorship, and support to Alberta FASD diagnostic clinics (alongside tailored training for out-of-province FASD clinics).

Rajani Clinic training wanted to bring together clinicians within their respective disciplines (Speech-Language Pathology, Psychology and Occupational Therapy) who are part of a multidisciplinary FASD clinic team to discuss FASD assessments (with a focus on pre-school aged children).

FASD assessment and diagnosis can be valuable at any age. A diagnosis can support an individual, family and caregivers to understand the individual's needs, strengths, and recommended supports to strengthen the child/youth success. Early intervention and accurate diagnosis may support children in obtaining health, education and vocational services that is tailored to their unique needs. Research also tells us that early diagnosis of FASD is associated with fewer adverse outcomes (challenges or difficulties such as mental health disorders, substance use, homelessness, justice involvement) later in life (Streissguth et. al., 2004).

Occupational Therapist Community of Practice

On March 30, 2023, a virtual Community of Practice was held with 11 Alberta Occupational Therapists in attendance. Previous to that a survey was sent to 23 AB FASD Clinics and was completed by 11 Occupational Therapists supporting nine clinic teams.

The Goals of the Community of Practice were:

1. Create the opportunity for OTs to connect.
2. To ensure consistency (in applying the Canadian FASD Diagnostic guidelines).
3. To determine if consensus could be reached for an optimum battery of assessment tools in preschool aged children.
4. Collect data to support other clinic teams.
5. Assess interest in future Community of Practice meetings.

Clinics Currently Assessing Preschool Aged Children

All of the 11 respondents were working with FASD Clinics in Alberta. Out of these 11 respondents only 3 answered that they have completed FASD assessments for preschool aged children, six answered no and four answered other. The total value of responses exceeded 11 due to a few respondents choosing more than one response.

The following comments were shared regarding assessing preschool aged children:

- Generally, 6 and older are assessed through this clinic.
- We have only assessed a few 5–6-year-olds over the years.
- I have not completed assessments for this age group for this Assessment team. I am new on the team and in the past, I was informed that they prefer that they are over 6 years of age. That being said, I do complete assessments for this age group all the time in my own practice and have assessed many children who go on to eventually get an FASD dx.
- We assess Adults over the age of 18.

There is currently no standard battery of tests used by clinics when assessing age 3 and clinicians typically test for the following for each age group:

| TESTS | 0-3M | 3-18M | 18-36M | 36M-6Y | 7-18Y | 18Y+ |
|----------------------------------------------------|------|-------|--------|--------|-------|------|
| Alberta Infant Motor Scale | 1 | 1 | | | | |
| Beery-VMI | | | | 4 | 7 | 2 |
| Beery-MC | | | | 4 | 7 | 3 |
| BOT2- Short | | | | 2 | 3 | 1 |
| BOT2- Complete | | | | 2 | 5 | 2 |
| Hand Dynamometer/Grip Strength Test | | | | | 1 | |
| McMaster Handwriting Assessment Protocol | | | | 1 | 6 | 2 |
| Movement Assessment Battery for Children - 2nd Ed. | | | | 3 | 4 | |
| Peabody Developmental Motor Scales - 2nd Ed. | | 1 | 2 | 2 | 2 | 1 |
| Sensory Processing Measure | | | | 1 | 3 | |
| Sensory Profile - 2nd Ed. | | | 1 | 5 | 6 | 2 |
| Miller Function and Participation Scales | | | | 2 | 1 | |
| Developmental Test of Visual Perception | | | | | | 1 |
| | | | | | | |

Comments on other tests used:

- Other tests that were reported to be used in some clinics were for 36 months to 18 years were the Test of Visual Perceptual skills - 4th edition, and the Test of visual Motor skills - 3rd edition. For the age range 7-12 the WOLD sentence copying test and for 7-14 the Developmental Eye Movements test was reported to be used. As well, it was reported that some clinics use the Handwriting Without Tears Print Tool, Quick Neurological Screening Test – QNST, SPM-2, not the SPM, and PDMS if child is unable to complete age-appropriate assessments. Also used occasionally was the COMPS-2nd and the TGMD-2nd edition.

Key themes from the Community of Practice & Calls to Action:

1. **There is a need for Occupational Therapists' who are assessing for FASD to have the opportunity to connect and knowledge share.**
 - Continue Communities of Practice for Occupational Therapists
2. **Occupational Therapists find value in assessing for early interventions and in connecting with services.**
3. **Occupational Therapists are utilizing a variety of testing tools in each age category. We have not identified a consistent battery of tests being used for preschool or school aged assessments.**
 - (see Detailed Survey Results below).
4. **Utilization of clinical judgement when interpreting Canadian Diagnostic Guidelines:**
 - Survey note: *Would you use clinical judgement to consider a domain impaired when tests do not indicate impairment? 36% respondents 'noted' yes, 46% of respondents noted 'no', and 18% responded 'other' and provided clarifying comments. See detailed survey results below.*
 - What percentile cut-offs to use when quantifying the impairments
 - The use of subtests and confidence intervals in determining a hit
5. **Diagnostic Nomenclature – Standardized definitions would support in creating consistency in defining qualitative descriptors.**
 - Delay vs. Disorder vs. Deficit
 - Utilizing a consistent team approach
6. **The Preschool population is not often seen by Occupational Therapists for FASD assessments.**
7. **The need for updated standardized tools that are effective and are representative.**

Assessment Tool Recommendations

Though consensus was not reached, the benefits of the following testing tools when assessing children were shared by some clinicians:

- Movement Assessment Battery for Children - 2nd Ed.
- Peabody Developmental Motor Scales - 2nd Ed.
- Beery-VMI 6th Ed.
- Beery-MC 6th Ed.

Consideration was given to what assessment tools clinicians have access to in their clinics, not all clinics have access to the same standardized tests and this impacts what tools the clinicians use.

Considerations for FASD Clinics & Clinic Coordinators

1. This report and accompanying Community of Practice reports can be used by FASD Clinics during annual clinic evaluation.
2. Provide opportunities for individual multidisciplinary clinic teams to connect outside of clinic day and share strengths, challenges and opportunities related to assessment.
3. Explore barriers that may exist within your clinic for assessing pre-school aged children.

Detailed Survey Results

Do you use tone, reflexes, balance, coordination, strength, and other abnormal findings on the neurological exam in combination with formal assessment of motor skills to define a “hit” in the motor domain?

| ANSWER CHOICES | RESPONSES | |
|------------------------|-----------|----|
| Yes | 45.45% | 5 |
| No | 18.18% | 2 |
| Other (please specify) | 36.36% | 4 |
| TOTAL | | 11 |

Comments:

- I would make note of these observations but would still want a standardized score below 2nd percentile to consider it a hit.
- These are considered but usually reliance is on the assessment scores.
- We assess these things and take them into consideration, but we only give a hit if there is a standardized score at 2% or below
- Typically, not doing physical exam/further ax unless concerns are noted during formal motor testing. Physician on clinic completes medical. Sometimes do rapid alternating movements, sequential finger-thumb opposition, finger-noise test for additional info

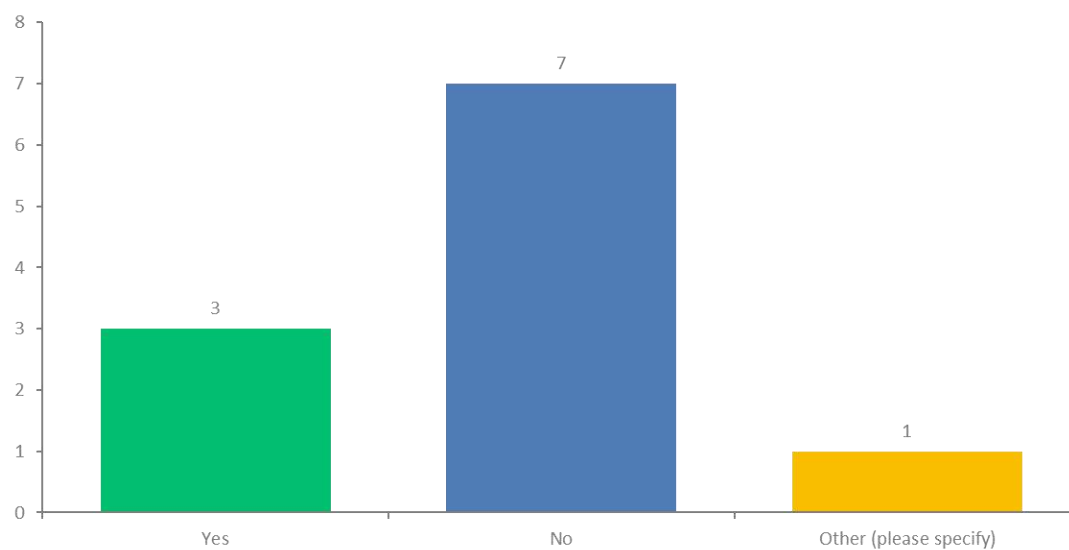
What cut-off do you use when considering impairment in a domain?

| ANSWER CHOICES | RESPONSES | |
|--------------------------|-----------|----|
| Below the 3rd percentile | 63.64% | 7 |
| Below the 5th percentile | 0% | 0 |
| Other (please specify) | 36.36% | 4 |
| TOTAL | | 11 |

Comments:

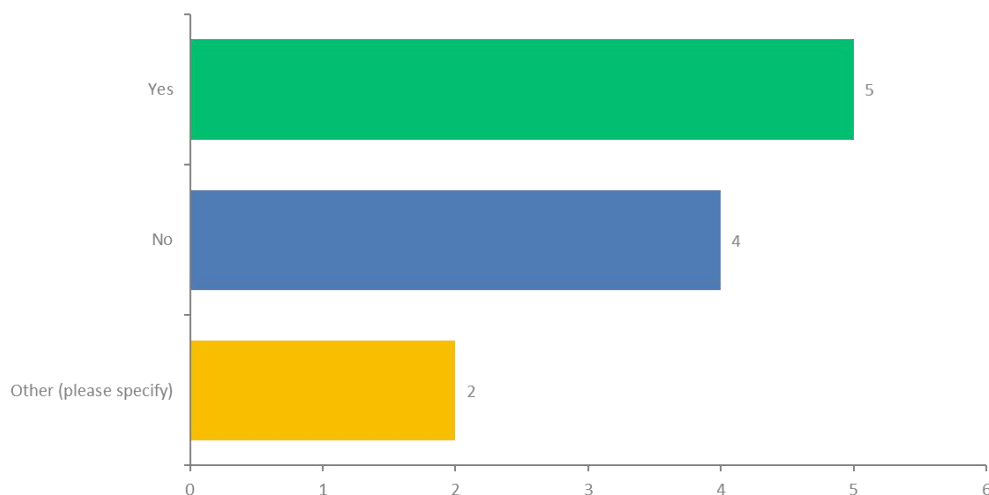
- Below 2nd percentile
- Two Standard Deviations or more below the mean
- > or equal to 2 standard deviations below the mean
- The standard score must be 70 or below, and that is below the second percentile.

Do you use confidence intervals?

**Comments:**

- Sometimes, but not often.

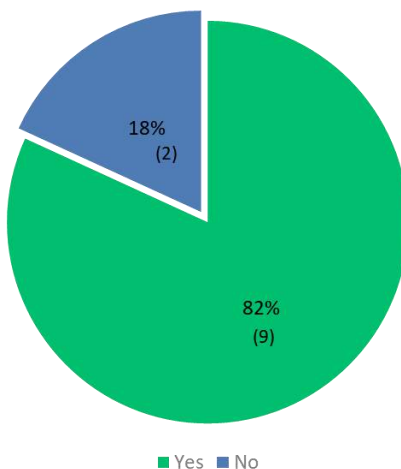
Do you use the discrepancy in performance between composite scores to consider a domain impaired?



Comments:

- Particularly if we note that one domain is more impaired compared to the other (ie FM vs GM skills)
- Not sure if I understand the Q Use MABC-2 scores as primary, supplement with VMI/subtest scores if needed.

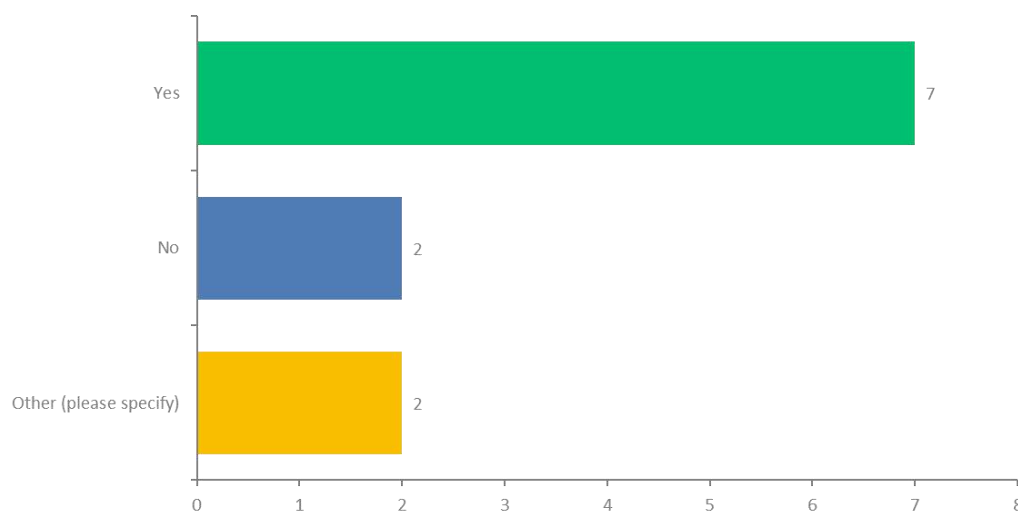
If a child has an impairment in motor skills but does not have a severe impairment, do you quantify the impairment?



Comments:

- Moderate - 3-5 Mild- 6-15
- mild- 10-21% Moderate 3-9th% Moderate to severe- 2nd percentile Severe- 1st percentile or below
- mild- 9-16percentile Moderate 3-8 percentile- written down as a significant finding on the report but not considered a hit for motor domain. We quantify it also in regard to how it impacts the child functionally.
- 10-16% mild 3-9% moderate
- Mild 10-16%ile Moderate 3-9th %ile
- 16%-10% = mild 9%-3% = moderate 2%-0% = severe
- Moderate 3-6% Mild - 7-15%
- It depends on the standardized assessment used as well as my clinical observations and overall appraisal of their skill level.
- According to manual descriptors for MABC2, Beery VMI

When considering an impairment for the motor skills domain, do you use multiple scores below the clinical cut-off on subtests?



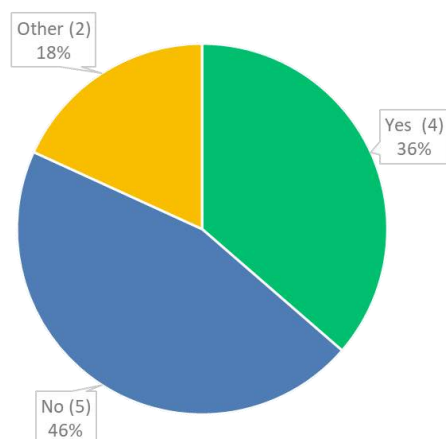
Comments:

- I would look at both the VMI and MFUN or BOT to ensure they were both below 1st percentile. If there was one score clearly below the 1st percentile and all others average, then I would analyze data to see why they may have had such differences in assessments.
- I'm not sure I understand the question - Sorry!

If you responded yes to the above question: What test scores do you use as subtest scores (e.g. the Manual Dexterity portion of the M-ABC, the fine motor quotient of the BOT2, complete form, etc.)

- All the sub tests of the BOT2
- I look at the overall score on BOT plus scores on VMI, specifically the motor domain
- MD on MABC, MC on Beery, McMaster
- Any of the 3 components of the M-ABC, as well as the total, Beery VMI
- Consider the VMI & Subtests & Movement ABC, complete form
- If two of the following subtests were at the 1st or 2nd percentile (and the total motor scores were not) we would consider giving a motor hit: Manual Dexterity of the MABC, fine motor quotient of the BOT-2 (complete form) and Motor Coordination subtest of the Beery-6
- On the BOT2 I use the 3 different quotient subtest scores along with another test result to support that finding if I see functional implications to support this.
- Manual Dexterity portion of the M-ABC
- MABC2 components (manual dexterity, aiming and catching, balance) and Beery VMI and subtest (motor coordination)
- The DTVPA edition 2 has four domains which include visual motor Integration visual motor efficiency Motor reduced Visual Perception General Visual Perception

Would you use clinical judgement to consider a domain impaired when tests do not indicate impairment?



Comments:

- No. Not unless there was strong evidence of a kid not being able to complete the assessment for some reason. For example, if a kid had cerebral palsy or a motor disability and was unable to complete the assessment but then I would be cautious of whether the impairment if from alcohol exposure or another reason.
- Yes, but not for a brain hit.

If you consider a domain impaired, what is the standardized language to describe the impairments? (select all that apply)

| ANSWER CHOICES | RESPONSES | |
|------------------------|-----------|-----------|
| Delay | 63.64% | 7 |
| Disorder | 18.18% | 2 |
| Deficit | 45.45% | 5 |
| Deficient | 0% | 0 |
| Other (please specify) | 18.18% | 2 |
| TOTAL | | 16 |

Comments:

- In OT note I typically use significantly delayed, well-below average, or 'significant movement difficulty' (if using MABC-2). Composite team report indicates 'domains significantly impaired'
- Below the 2nd percentile.

Referencing the previous question, what do you base your decision on regarding the choice of standardized language used to describe the impairment? (i.e. age, test used, etc.)

- Age, test used, percentile
- I use delay based on the assessment used.
- I wouldn't typically consider it a delay as that term implies that they could catch up; Deficit seems to describe it better as it is not a specific "disorder"
- Client presenting information to, tests
- Our clinic decided to use deficit across the board.
- Based off of the standardized test wording
- Trying to be less deficit-based
- Generally, for younger children who have not had access to intervention I use the language "delay". When it is an older child who has had opportunity to practice and develop skills over time, I use "disorder".
- Age, other contextual factors that may need to be considered.
- Try to use manual descriptors

Autism Spectrum Disorder

How often do you see features of autism spectrum disorder (ASD) when testing children with FASD?

| ANSWER CHOICES | RESPONSES | |
|----------------------------|-----------|----|
| All the time (75-100%) | 0% | 0 |
| Very Frequently (50 - 75%) | 0% | 0 |
| Frequently (25-50%) | 18.18% | 2 |
| Sometimes (0-25%) | 81.82% | 9 |
| Never | 0% | 0 |
| TOTAL | | 11 |

Within which age category do you see features of ASD when doing your assessments? (Pick all that apply)

- Under 18 months- 0 responses
- 18 months to 5 years- 2 responses
- 6 to 18 years- 10 responses
- 18+ years- 1 response

Describe notable features of ASD you have seen when doing your assessments.

- Sensory processing differences -specific interests -rigidity -motor planning impairments
- Lack of eye contact. Sensory stims. Noise sensitivity.
- Avoid eye contact, rigid thinking/behavior, perseveration
- Repetitive behavior, lack of eye contact, lessened reciprocal communication/interaction
- Atypical postures, rigid thinking, poor nonverbal communication skills, reduced interaction,
- Perseverative language, poor eye contact, differences in social skills, focused interests
- It is less often that all 4 ASD diagnostic criteria are present in the children that I see who are FASD, however, I often see many of the features including: - sensory processing disorder - executive functioning deficits - repetitive play and movements - social delays - deficits in perspective taking, self focus - communication deficits
- Repetitive behaviors, poor eye contact, impulsivity

Discussion and Next Steps

The value of community is important and its nice to have colleagues to discuss challenges with FASD assessment.

This community is helpful moving forward, discussions could evolve to develop common qualitative descriptors, moving towards standardization and consistency with nomenclature, the use of subtests and percentile cut-offs.

There is value in assessing Preschool children to direct intervention supports and to provide guidelines for children that support families.

Clinical judgement can be considered when it is backed by a standard measurement and review of all information gathered.

There is value in standardizing definitions for qualitative descriptors. Descriptors should be supportive to parents/caregivers. Consideration for young children that statements do not lead to limitations of abilities or inhibit access to services.

Next Steps: There is value in hosting regular Community of Practice meetings. There is a need for Occupational Therapists who are assessing for FASD to have the opportunity to connect and knowledge share. Future topics could include:

- Assessment tools for other age groups
- Clarity on guidelines for preschoolers
- Consistency about how to move forward
- Other emerging topics of interest

References

- Cook, J.L., Green, C. R., Lilley, C. M., Anderson, S. M., Baldwin, M. E., Chudley, A. E., Conry, J. L., LeBlanc, N., Looock, C. A., Lutke, J., Mallon, B. F., McFarlane, A., Temple, V., & Rosales, T. (2015). Fetal Alcohol Spectrum Disorder: A Guideline for Diagnosis Across the Lifespan. *Canadian Medical Association Journal*, 188, 191-197. doi: 10.1503/cmaj.141593.
- Streissguth, A. P., Bookstein, F. L., Barr, H. M., Sampson, P. D., O'Malley, K., & Young, J. K. (2004). Risk factors for adverse life outcomes in fetal alcohol syndrome and fetal alcohol effects. *Journal of developmental and behavioral pediatrics*, 25(4), 228–238. doi: 10.1097/00004703-200408000-00002