

Earlier Identification of Autism in Toddlers with the Rapid Interactive Screening Test for Autism in Toddlers (RITA-T): Fast track clinics with Early Intervention, Primary Care and telehealth experience.

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Background

- The RITA-T (Rapid Interactive Screening Test for Autism in Toddlers) is an interactive ASD level II screening test.
- Easy to learn and to administer reliably; it can be completed in less than 10 minutes, and has demonstrable clinical validity.
- It has a proven record of effective training, broad and affordable access to providers, and a targeted focus on socio-developmental constructs relevant to ASD that are observable in very young children.
- Validated, with clear cut off scores: <11: low risk; 12-16: medium risk and >16 high risk for ASD.
- Does not rely on language.
- Its kit includes pictures to represent all children and racial ethnicities.

Autism Diagnosis in Toddlers

- Diagnosis of ASD still closer to age 4 years and later in minorities, but signs can be seen as early as 12 months.
- Shortage of diagnosticians: need other systems to improve access.
- With the COVID-19 pandemic, telehealth evaluations have been propelled to the frontline. There is no current validated tool with good psychometric properties for the screening of ASD in toddlers by telemedicine.



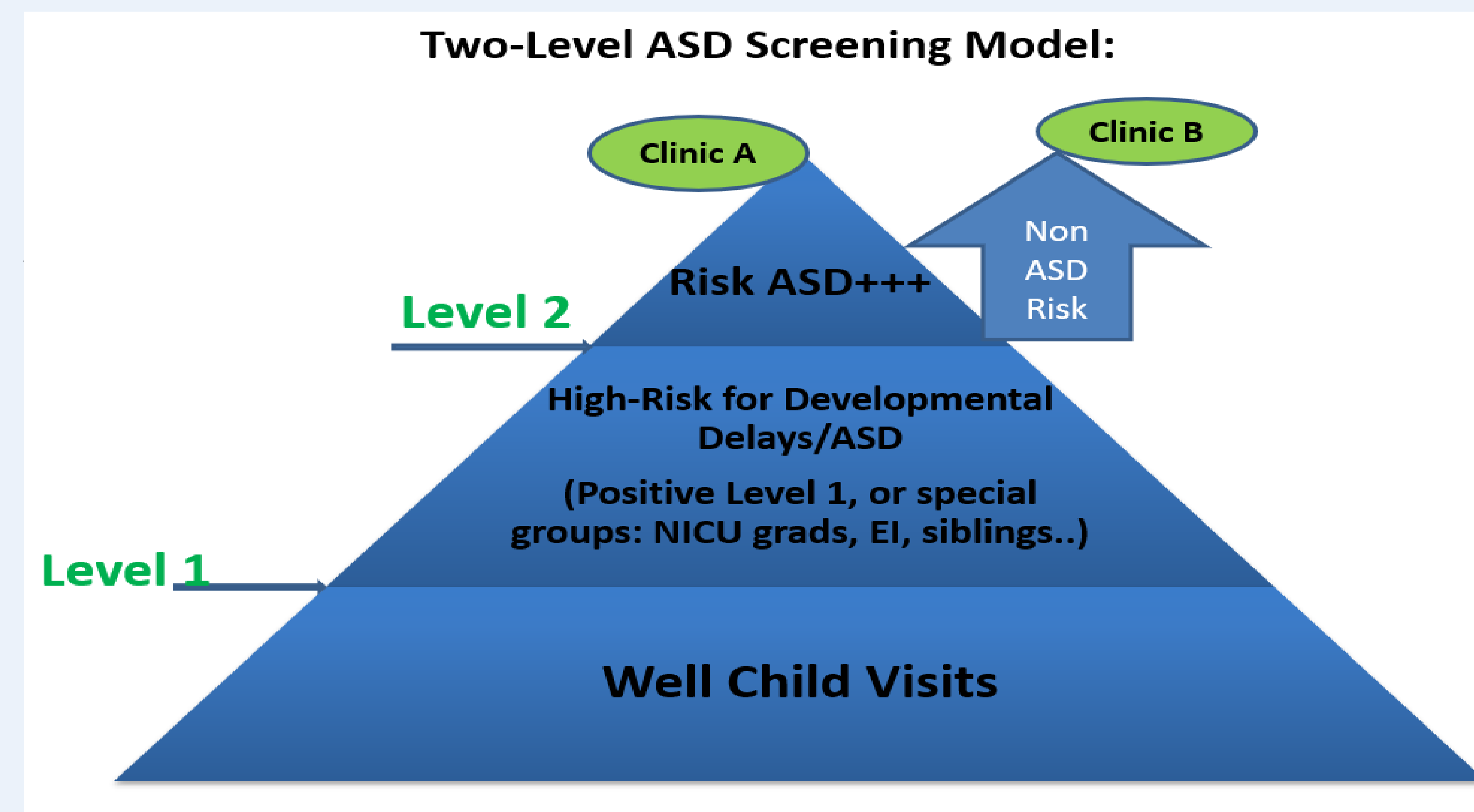
Objectives

- Present and discuss models of fast track clinics with Early Intervention (EI) and Primary Care incorporating the RITA-T.
- Validate a Telehealth RITA-T for those 18-36 months and identify a cut off score to differentiate between those with ASD and those with non-ASD.

Methods

- Pilot with THOM EI Program in Worcester: 4 therapists trained on the RITA-T reliably. Toddlers in EI with concerns of ASD, received the RITA-T and were referred for evaluation.
- Improved access and toddlers seen in 4-6 weeks (Published in JADD; 2021).
- In collaboration with Department Public Health, ALL EI programs in MA but two trained on the RITA-T and were linked to diagnosticians in their areas.

- DBP: main referral for EI programs in Central and Western MA.
- Pediatricians, pediatric residents, nurses within practices and at UMass pediatrics trained on RITA-T.
- Developed workshops, intake forms, and RITA-T fast track clinics in DBP.
- With COVID: telehealth RITA-T, modified from RITA-T: maximum score of 20 (vs. 30 for the RITA-T). Research team directs parents to perform prompts and scores test.
- Diagnostic evaluations: history, observations, DSM-5, Childhood Autism Rating Scale, Autism Diagnostic Observation Schedule, Mullen Scales of Early Learning. Telehealth RITA-T: Divided into two groups: ASD and non-ASD (developmental delay).



Statistical Methods for telehealth RITA-T

- Calculated sensitivity/Specificity and Positive predictive value at all scores to identify optimal cut off score.

Results

Diagnostic RITA-T Clinics (Same model by telehealth)

- **Diagnostic evaluation : 1 hour**
 - Family sent intake to bring with them
 - ASD diagnosis has already been discussed with the family
 - EI Provider comes with family most often
 - In Person Interpreter arranged
 - Visits interdisciplinary:
 - DBP and/or Child Psychologist
- **Focused:**
 - History of current concerns
 - Developmental and Medical Hx
 - Observation of play and behavior
 - Autism Testing
 - Counseling about diagnosis
 - Letter for services
 - Medical referrals
 - Follow-up within 1-2 months with Social Work

Fast Track RITA-T Clinics

Over 1 year: September 9, 2018-September 9, 2019:
 520 toddlers evaluated by whole group (3-4 months wait time)
 170 were referred to RITA-T Fast Track Clinic (1-3months: insurances)

Over 1 year: June 1, 2020-May 26, 2021: Telehealth
 544 evaluated by whole group (Wait time 4-5 months)
 280 referred through the RITA-T Fast Track clinic (Wait time 2-4 months)

Telehealth RITA-T Cut-Off Level

- A total of **104** toddlers were enrolled. Of those, 2 were excluded, 13 were lost to follow-up, and 3 are not yet evaluated. From **86**: **71** had diagnosis of ASD; **15** Non-ASD. Ages varied between 17 and 36 months (mean 30 months for the Non-ASD group, and 29 months for the ASD group).
- The telehealth RITA-T score was compared to the final clinical diagnosis to determine the optimal cut-off score.
- Cut-off score determined to be 10: <5: low risk; 5-10: moderate risk; >10: high risk for ASD.
- 21 had received the RITA-T: high correlation (pearson 0.74; p=0.0007) with telehealth RITA-T.

Dissemination and Increasing collaborations

- Developed material for remote evaluations (on website and free to download): Early Autism Screening Inventory (EASI). Developing videos of administration/examples of Telehealth RITA-T, similar to RITA-T course.
- Manual and scoring sheet completed.
- Ongoing trainings with EI, early childhood centers, and primary care.
- Other ways to disseminate further.

Conclusions

- RITA-T fits nicely in a level-2 screening model to improve access
- RITA-T increased collaborations with EI and primary care.
- Telehealth RITA-T correlates with RITA-T.
- We continue to study these methods and collaborate for further generalization.