Creating a More Efficient and Equitable Autism Evaluation Pathway Through Integrated Behavioral Health in Pediatric Primary Care

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ABSTRACT

BACKGROUND: Long wait times for autism spectrum disorder diagnostic evaluations delay access to early intervention and disproportionately affect Hispanic families and families who speak a primary language other than English. Integrated behavioral health models in pediatric primary care offer an opportunity to improve early identification, streamline referrals, and reduce inequities in access to specialty care.

METHODS: We describe the implementation of a tiered, integrated autism screening and diagnostic pathway within Hasbro Children's Pediatric Primary Care Clinic in Providence, Rhode Island. The pathway embeds behavioral health consultation and secondary autism screening into routine well-child visits for children ages 0–3. Children identified as at risk for autism receive expedited referral to specialty diagnostic evaluation using gold-standard assessment tools available in English and Spanish. Program evaluation includes comparison with two historical control groups (2018 pre-COVID and 2022 post-COVID) on wait times to specialty contact and diagnostic evaluation, as well as referral completion and connection to services. Patient experience is assessed using quantitative satisfaction measures and qualitative interviews within a quality improvement framework.

RESULTS: The clinical pathway is currently active, and data collection is underway. Outcome data are not yet available. Early implementation demonstrates the feasibility of embedding secondary autism screening and care coordination within pediatric primary care and highlights the role of behavioral health integration in addressing delays in access to specialty services.

CONCLUSIONS: A tiered, integrated autism evaluation pathway within pediatric primary care has the potential to reduce diagnostic delays, improve equity, and enhance family-centered care. Findings from ongoing evaluation will inform refinement and replication of this model in other primary care settings.

KEYWORDS: Autism spectrum disorder; behavioral health integration; pediatric primary care; early identification; health equity; developmental screening

INTRODUCTION

Timely identification of autism spectrum disorder is essential for optimizing developmental outcomes and reducing family stress. Despite universal screening recommendations, children in the United States experience prolonged delays between initial concern and diagnostic evaluation, with average wait times exceeding two years.[1] During this period, many children do not access early intervention or other supportive services, limiting opportunities to promote development during a critical window of neuroplasticity.[2,3]

These delays disproportionately affect families from minoritized racial and ethnic backgrounds, particularly Hispanic families and families whose primary language is not English.[4,5] Such families face longer waits for diagnostic appointments and additional barriers to navigating specialty care systems. Efforts to improve efficiency must therefore also address equity, accessibility, and patient-centered care.

Integrated behavioral health models within pediatric primary care offer a promising approach to reducing delays and improving continuity of care. By embedding behavioral health clinicians and using tiered screening strategies, primary care practices can identify children at highest risk, provide early guidance to families, and streamline referrals to specialty services. This article describes the implementation of a tiered, integrated autism screening and diagnostic pathway within Hasbro Children's Pediatric Primary Care Clinic in Providence. The program is currently underway, with data collection in progress.

CLINICAL SETTING

The majority of the children in Hasbro Children's Pediatric Primary Care Clinic live in or near Providence, and the clinic's population reflects Providence's racial, ethnic, and linguistic diversity. Most of the children are covered by Medicaid insurance. Prior to implementation, children who screened positive for developmental or autism-related concerns were referred to specialty services at the discretion of primary care providers, resulting in variable follow-up and long waits for diagnostic evaluation.

The goal of the current initiative was to create a more efficient, equitable, and family-centered pathway from primary to specialty care, embedded within an integrated behavioral health framework.

DESCRIPTION OF THE TIERED INTEGRATED PATHWAY

All children attending well-child visits complete standardized developmental and autism-screening measures consistent with the guidelines of the American Academy of Pediatrics,[6] including the Survey of Well-being of Young Children (SWYC)'s autism-specific screener, Parent Observations of Social Interactions (POSI)[7] at 18, 24, and 30 months of age, and the Modified Checklist for Autism in Toddlers-Revised (M-CHAT-R)8 at 18 and 24 months.[8]

Children who screen positive and their families meet with their primary care provider, who explains the results and provides information about next steps in assessment. The family receives written information and a QR code to access an informational video, available in English and in Spanish, describing the assessment process [**Figure 1**]. Some families meet with members of the integrated behavioral health team, including psychologists, social workers, and community health workers, who provide caregiver education, clinical consultation, and/or care coordination, allowing concerns to be addressed during the same visit in which they are identified.

Many of the children who screen positive as having autistic traits complete the Rapid Interactive Screening Test for Autism in Toddlers (RITA-T),[9] a secondary screening assessment administered by trained clinicians within primary care. This brief, interactive tool evaluates social-communication differences commonly seen in young children with autism. The research team is conducting a validation study to assess the sensitivity and specificity of the RITA-T's suggested cutoff scores with the clinic's population, with the goal of using the RITA-T in the future to more appropriately guide referrals to specialty care for autism evaluations.

At present, all children referred through the pathway, regardless of RITA-T score, are fast-tracked to the Children's Neurodevelopment Center for an autism evaluation, using the Autism Diagnostic Observation Schedule, 2nd Edition (ADOS-2).[10] Diagnostic assessments are conducted in English or Spanish. After the assessment, families receive oral feedback about the results of the evaluation, during which time they receive a written report that includes individualized recommendations, including referrals to early intervention and other services as indicated.

Figure 1. QR Code with Link to English Video Describing Assessment Process

EVALUATION PLAN

Program outcomes will be compared with two historical clinical control groups drawn from the same primary care clinic: a 2018 pre-COVID control group and a 2022 post-COVID control group. Children in all groups screened positive as having autistic traits based on the SWYC POSI or the M-CHAT.

The two historical control cohorts were demographically similar and reflected the racial, ethnic, and socioeconomic diversity of the clinic's patient population [**Table 1**]. Children in the 2018 (n = 152) and 2022 (n = 162) cohorts were screened at a mean age of 2.11 years (SD = 0.50) and 1.97 years (SD = 0.46), respectively. In both cohorts, the majority of children were male (64.5% in 2018; 58.6% in 2022).

Both cohorts were racially and ethnically diverse. Over half of children in each group were identified as Hispanic or Latino (52.0% in 2018; 58.0% in 2022). A substantial proportion of children were identified as Black or African American (29.0% in 2018; 27.8% in 2022), with smaller proportions identified as White, Asian, or American Indian/Alaska Native. Many families reported racial identities categorized as "Other," reflecting the limitations of structured race fields in the electronic medical record.

The majority of families in both cohorts used English as their primary language to communicate in the healthcare setting (86.2% in 2018; 88.3% in 2022), with Spanish being the most common non-English language (9.9% in both years). Additional languages were represented in small numbers, highlighting the linguistic diversity of the clinic population.

Most children in both cohorts were publicly insured through Medicaid (88.8% in 2018; 85.2% in 2022), underscoring the socioeconomic vulnerability of the population served.

By the end of the respective calendar years, relatively few children had received a formal autism diagnosis (2.6% in 2018; 8.00% in 2022). In the years since their initial autism screens, considerably more were diagnosed with autism (13.16% from the 2018 cohort; 22.84% from 2022), underscoring the fact that most children were not formally diagnosed within the same calendar year when they were first identified as having autistic traits.

Of note, the two cohorts differed greatly in their diagnostic profiles, with the 2022 post-COVID cohort exhibiting notably more comorbid speech delays (54.94%) compared to the 2018 pre-COVID cohort (32.89%). The samples similarly differed in proportion of autism diagnoses, both within the same calendar year and lifetime (2.63% same year and 13.16% lifetime in 2018; 8.00% same year and 22.84% lifetime in 2022). The cohorts had similar proportions of children with comorbid developmental delays, however (26.32% in 2018, 25.31% in 2022). It may be that differences in the social and linguistic development of the 2022 cohort were impacted by the COVID shutdown.

Primary outcomes include time from identification of autistic traits to specialty contact, time to first specialty visit, time to diagnostic evaluation, and time to autism

Table 1. Demographic Characteristics of Children Identified as At Risk for Autism in Historical Control Groups

	2018 Control Group (Pre-COVID)	2022 Control Group (Post-COVID)
N	**152**	**162**
Age at screening		
Mean (SD)	2.11 (0.50)	1.97 (0.46)
Range	1.39–3.99	1.00–3.89
Gender, n (%)		
Male	98 (64.47%)	95 (58.64%)
Female	54 (35.53%)	67 (41.36%)
Other	0 (0.00%)	0 (0.00%)
Race (individuals can identify with more than one label), n (%)		
Black or African American	44 (28.95%)	45 (27.78%)
White or Caucasian	25 (16.45%)	32 (19.75%)
Asian	3 (1.97%)	3 (2.47%)
American Indian or Alaska Native	0 (0.00%)	1 (0.62%)
Other	85 (55.92%)	89 (54.94%)
Unknown	1 (0.66%)	0 (0.00%)
Ethnicity, n (%)		
Hispanic or Latino	79 (51.97%)	94 (58.02%)
Not Hispanic or Latino	73 (48.03%)	67 (41.36%)
Unknown	0 (0.00%)	1 (0.62%)
Primary Language, n (%)		
English	131 (86.18%)	143 (88.27%)
Spanish	15 (9.87%)	16 (9.88%)
Kunama	2 (1.32%)	0 (0.00%)
Arabic	1 (0.66%)	0 (0.00%)
Cambodian	1 (0.66%)	0 (0.00%)
Cape Verdean Creole	1 (0.66%)	0 (0.00%)
Haitian Creole	0 (0.00%)	1 (0.62%)
Hmong	0 (0.00%)	1 (0.62%)
Portuguese	0 (0.00%)	1 (0.62%)
Somali	1 (0.66%)	0 (0.00%)
Insurance Type, n (%)		
Medicaid	135 (88.82%)	138 (85.19%)
Commercial	9 (5.92%)	20 (12.35%)
Behavioral	3 (1.97%)	1 (0.62%)
HMO	2 (1.32%)	2 (1.23%)
Not Listed	2 (1.32%)	1 (0.62%)
PPO	1 (0.66%)	0 (0.00%)
Comorbid developmental diagnoses (same year)		
Speech delay, n (%)	50 (32.89%)	89 (54.94%)
Developmental delay, n (%)	40 (26.32%)	41 (25.31%)
Autism diagnosis		
Same year, n (%)	4 (2.63%)	13 (8.02%)
Lifetime, n (%)	20 (13.16%)	37 (22.84%)

Abbreviations: n = number. SD = standard deviation.
Footnotes: Children in both groups were identified as at risk for autism based on standardized screening results obtained during well-child visits between ages 0–3 years.
Data were obtained via retrospective chart review of patients seen in pediatric primary care in 2018 (pre-COVID) and 2022 (post-COVID).

diagnosis for children ultimately diagnosed. Secondary outcomes include referral completion and connection to early intervention, audiology, speech therapy, and occupational therapy. Survival analysis methods will be used to compare time-to-event outcomes across groups.

PATIENT EXPERIENCE AND QUALITY IMPROVEMENT

Patient and caregiver experience is a central focus of the pathway. Satisfaction data are collected following primary care and specialty visits, and families are invited to participate in qualitative interviews to identify barriers to care and unmet needs. These data will contribute to quality improvement projects using a Plan–Do–Study–Act framework to iteratively refine workflows, communication strategies, and supports for families. Particular attention is paid to understanding barriers faced by families who do not attend scheduled specialty visits, including logistical, linguistic, and socioeconomic challenges.

CURRENT STATUS AND FUTURE DIRECTIONS

The pathway is currently active, and data collection is underway. The first evaluation was completed on August 1, 2025, and since then 18 patients have received expedited autism evaluations under this pathway. While outcome data are not yet available, early implementation demonstrates the feasibility of embedding secondary autism screening and expedited referral processes within routine pediatric primary care.

Future directions for this work focus on refining the clinical pathway and ensuring that it is both evidence-based and responsive to community needs. One ongoing line of research is a validation study of the RITA-T within this clinic population. This study will evaluate the sensitivity and specificity of proposed cutoff scores and examine how secondary screening results can most effectively guide referral decisions. Establishing local validity is a critical step toward using the RITA-T to more precisely triage referrals, reduce unnecessary specialty evaluations, and further decrease wait times without compromising diagnostic accuracy.

In parallel, our team has received funding to conduct a community-engaged study aimed at extending the pathway beyond expedited diagnosis toward sustained, equitable longitudinal care. Using group concept mapping, a highly participatory mixed-methods approach, we will collaborate with

autistic self-advocates, caregivers, educators, and primary care providers to co-develop a prioritized action plan for how primary care can better support children with autism and their families across the course of childhood. Outputs from this work will directly inform quality-improvement initiatives in the clinic and guide future intervention development.

If the current pathway is shown to reduce diagnostic delays and improve family experiences, a longer-term goal is to expand this model to additional primary care clinics across Rhode Island. Under this model, clinicians at the Children's Neurodevelopment Center would serve as a hub for expedited autism assessments and provide training and ongoing consultation to primary care teams, implementing primary and secondary screening, care coordination, and post-diagnostic support. This hub-and-spoke approach has the potential to extend the reach of specialty expertise, reduce geographic and linguistic barriers, and strengthen the capacity of pediatric medical homes to provide integrated, developmentally informed care.

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