BACKGROUND

- The shortage of Developmental-Behavioral pediatricians often delays care for children with autism spectrum disorder (ASD).
- Extension for Community Healthcare Outcomes (ECHO) allows expert teams to share best-practice training to primary care providers (PCPs) via videoconferencing.
- Prior research has supported improved PCP knowledge and self-efficacy after a 6-month ECHO autism training.
- However, a scaled-down training may still improve knowledge and self-efficacy while increasing feasibility for PCPs with limited time.
- This study tested two 5-week ECHO trainings to determine:
  1. Change in PCP knowledge & self-efficacy
  2. Feasibility (via attendance)
- In this model, PCPs can attend one or both 5-week trainings.
- Part 1 addresses ASD diagnosis, medical work-up and resources.
- Part 2 addresses possible co-occurring diagnoses (e.g. anxiety, ADHD, sleep concerns) and treatment options.

METHODS

- Prospective, longitudinal pilot study. IRB exemption obtained.
- Enrolled PCPs attending ECHO autism trainings between Oct 2021 to May 2022.
- Informed consent obtained. Participants completed pre and post knowledge assessments and self-efficacy surveys.
- Many knowledge questions adapted from a test utilized in a previously published study (Mazurek et al 2020). Additional questions written and peer reviewed for this training.
- Data analyzed with descriptive statistics and tests with alpha <0.05 to analyze pre/post changes in PCP knowledge and self-efficacy.

RESULTS

**PART 1**

<table>
<thead>
<tr>
<th>TYPE OF PROVIDER</th>
<th>COUNTY DESIGNATION OF PRACTICE</th>
<th>PREVIOUS ASD TRAINING</th>
<th>POSTTEST MEAN (SD)</th>
<th>PRETEST MEAN (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician</td>
<td>Urban</td>
<td>Rotation during medical training</td>
<td>4.0 (1.14)</td>
<td>4.9 (0.50)</td>
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<tr>
<td>Physician</td>
<td>Urban</td>
<td>Conference</td>
<td>3.1 (1.76)</td>
<td>3.1 (1.76)</td>
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<td>Urban</td>
<td>Workshop of other course</td>
<td>4.0 (2.00)</td>
<td>4.0 (2.00)</td>
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<td>Urban</td>
<td>Previous ECHO autism training</td>
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<td>2.0 (1.00)</td>
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<tr>
<td>Physician</td>
<td>Urban</td>
<td>No Prior Training</td>
<td>10.50</td>
<td>10.50</td>
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</tbody>
</table>

**PART 2**

<table>
<thead>
<tr>
<th>TYPE OF PROVIDER</th>
<th>COUNTY DESIGNATION OF PRACTICE</th>
<th>PREVIOUS ASD TRAINING</th>
<th>POSTTEST MEAN (SD)</th>
<th>PRETEST MEAN (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician</td>
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<td>Rotation during medical training</td>
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<tr>
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<td>Rural</td>
<td>Conference</td>
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<tr>
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<td>Rural</td>
<td>Workshop of other course</td>
<td>8.0 (1.69)</td>
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<tr>
<td>Physician</td>
<td>Rural</td>
<td>Previous ECHO autism training</td>
<td>4.0 (2.00)</td>
<td>4.0 (2.00)</td>
</tr>
<tr>
<td>Physician</td>
<td>Rural</td>
<td>No Prior Training</td>
<td>4.0 (2.00)</td>
<td>4.0 (2.00)</td>
</tr>
</tbody>
</table>

**PART 1 Results: Self Efficacy, n=7**

- Identify red flags for autism questions/cases (X%)
- Use the BC-CHAT if at all sources for ASD
- Talk to families when you have a concern for ASD
- Discuss ASD diagnostic criteria
- Be a medical home for children with ASD
- Help families of children with ASD identify and access therapy resources
- Behave a simplified approach to genetic testing related to a diagnosis of ASD
- Evaluate for co-occurring behavioral problems in children with ASD
- Discuss implementation of complex biologic management strategies for children with ASD

**PART 2 Results: Self Efficacy, n=10**

- Evaluate for any new information on children with ASD and related treatment regimens (X%)
- Diagnose on the basis of behavioral and clinical criteria
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- Evaluate for any new information on children with ASD and related treatment regimens (X%)

CONCLUSIONS

- A 5-week ECHO autism training program focused on possible co-occurring diagnoses and specific treatment options may increase the feasibility for PCPs to care for children with autism spectrum disorder within their medical home.
- Attendance results support feasibility of the program for participants.
- Participants are overall highly satisfied with both Part 1 and 2 trainings.
- Additional research is needed to address the limited change in participant knowledge and self-efficacy for Part 1.

IMPLICATIONS

- A shorter but effective ECHO curriculum can potentially increase the feasibility for busy PCPs to access training.
- With a shorter curriculum, more ECHO sessions can be offered per year.
- The use of ECHO training to increase the capacity for PCPs to care for children with autism spectrum disorder may help reduce delays in care.

DISCLOSURES

- The study team has no conflicts of interest to disclose.