Improving Autism Spectrum Disorder Screening: A Quality Improvement Project

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Introduction

- The American Academy of Pediatrics recommends routinely screening for Autism Spectrum Disorder (ASD) at 18 and 24 months of age[1]
- Screening leads to earlier identification, earlier diagnosis, earlier referrals, earlier interventions/services, and better patient outcomes[2]
- Only 8-17% of providers are routinely screen for ASD, with those in urban areas more likely to screen than rural areas[3,4,5]

Purpose

- **Purpose:** To increase ASD screening by primary care providers (PCPs) in Iowa
- **Objectives:**
  1. Gain an understanding of current screening practices and identify barriers PCPs in Iowa face
  2. Develop and provide an education session/webinar for providers about ASD, screening recommendations, and referral sources
  3. Implement ASD screening into practice at Mercy Pediatric Clinic in Cedar Rapids, IA

Methods

- Project deemed not human subject research by University of Iowa IRB on June 26, 2017, project number: 201706766
- **Settings:** Iowa and Mercy Pediatric Clinic, Cedar Rapids, IA
- **Population:** PCPs in Iowa and children seen for 18 and 24 month well visits between June 2017 and December 2017
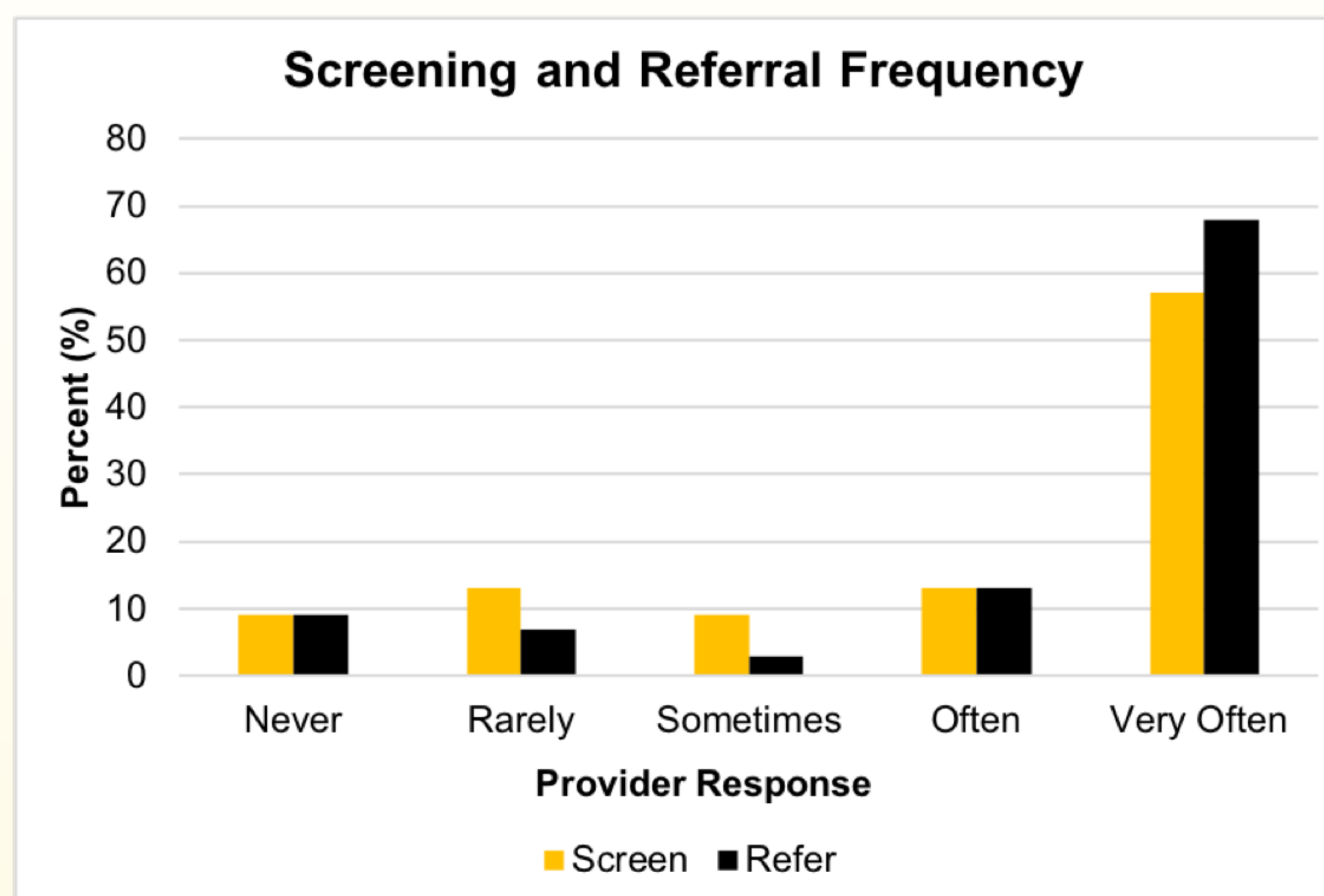
Assessed Screening Practices & Barriers
- Developed a survey
- Collaborated with IANP, INPS, and 1st Five
- Distributed survey
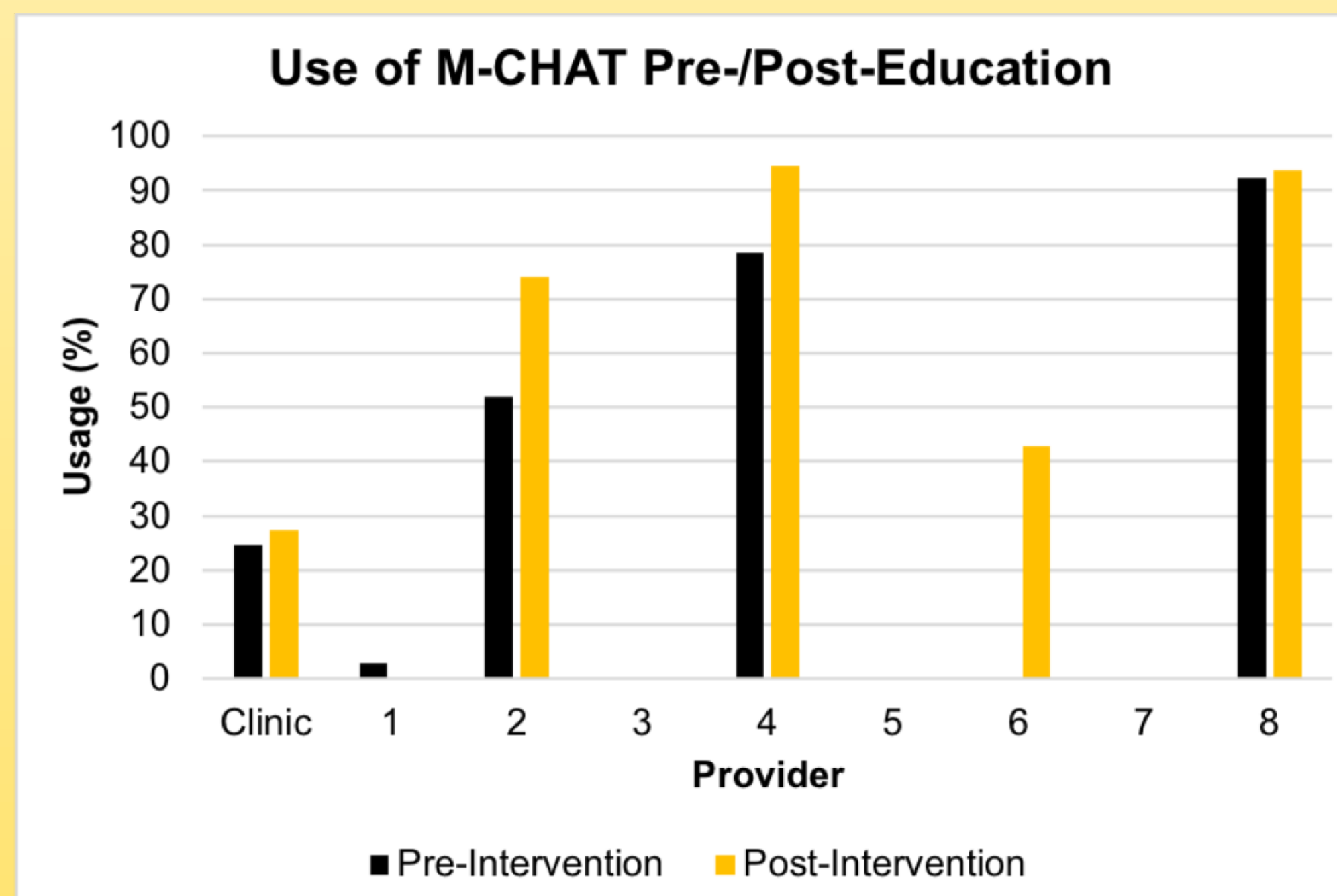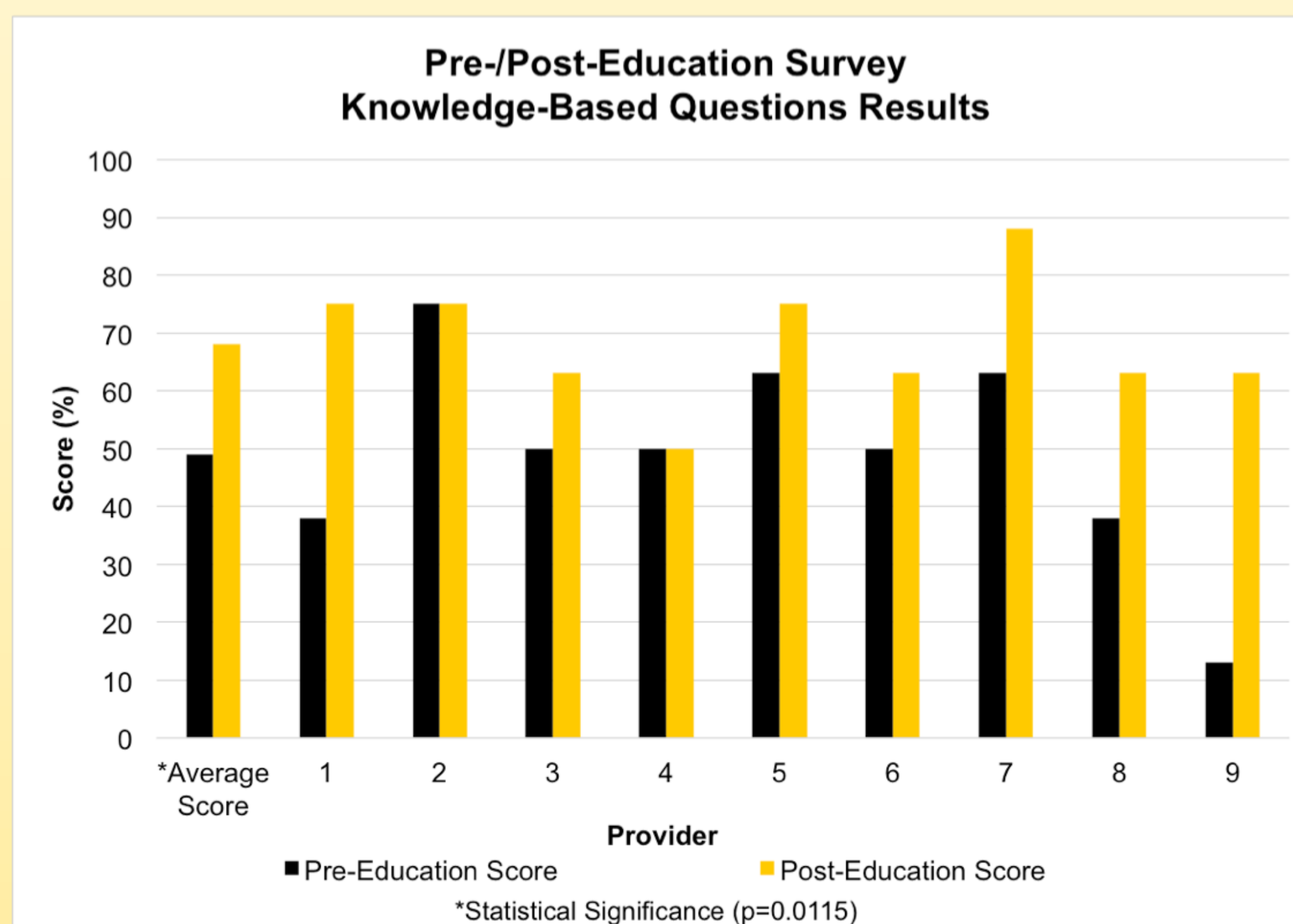- Analyzed results/feedback from survey

Educated Providers
- Developed educational session/webinar for PCPs
- Created pre/post education surveys
- Presented educational session/webinar
- Administered pre/post surveys
- Analyzed data from surveys

Implemented Screening Tool
- Collected baseline data
- Implemented screening into practice
- Collected post-implementation data
- Reviewed/analyzed data

Outcomes

Screening and Referral Frequency

Bar chart: Percent (%) vs Provider Response (Never, Rarely, Sometimes, Often, Very Often). Legend: Screen, Refer.

Barriers to Screening Identified by PCP's

Barrier	#	%
Lack of resources	24	34%
Lack of time	19	27%
Clinical work flow	17	24%
Lack of knowledge for referrals	13	19%
Lack of reimbursement	13	19%
Lack of staff support	10	14%
Lack of treatment options	10	14%
Lack of knowledge on screening tools available	7	10%
No Barriers	7	10%
Lack of knowledge on how to screen	6	9%
Lack of confidence in screening tool to detect ASD	6	7%
Lack of confidence in caring for the child	5	7%
Not applicable to area of practice	3	4%
Parent non-compliance	2	2%
Fear of having a positive screen	1	1%

Pre-/Post-Education Survey Knowledge-Based Questions Results

Bar chart: Score (%) vs Provider (Average Score, 1-9). Legend: Pre-Education Score, Post-Education Score. *Statistical Significance (p=0.0115)

Use of M-CHAT Pre-/Post-Education

Bar chart: Usage (%) vs Provider (Clinic, 1-8). Legend: Pre-Intervention, Post-Intervention.

Evaluation

- 70% of providers (n=49) report screening for ASD on a regular basis
- Only 80% of providers (n=56) refer the child on if there is concern for ASD
- All provider-types are equally as likely to use the M-CHAT R/F
- The educational session increased providers knowledge from 48.89% to 68.33% (p=0.0115) on knowledge-based questions
- M-CHAT R/F was used 24.64% pre-intervention and was used 27.31% post-intervention (p=0. 5075)
- 4 providers increased use of M-CHAT post intervention, 1 provider used only once pre-intervention, and 3 providers never used M-CHAT R/F
- Limitations: majority of providers who completed initial survey were from 3 counties in IA, limited sample size from the educational sessions, & intervention was limited to 1 clinic in Cedar Rapids, IA

Conclusions

- Important to assess and understanding barriers to implementing recommended guidelines
- Education is an effective way to encourage providers to follow screening recommendations, but does not mean providers will follow through
- Recommendations for future: use knowledge of barriers to help improve screening rates
- Presented project at April 2018 RAP meeting and plan to submit abstract to 2019 NAPNAP conference
- Working on publishing in a peer-reviewed journal

References

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