



# Project Evaluation Report

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## Child Psychiatry ECHO Project

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The Child Psychiatry ECHO project engaged 31 participants from August 1, 2016 through March 30, 2017. At the end of the program, 27 participants were still actively participating in the program. The pre-survey (Appendix 1) was sent to all participants when they joined the program on or after August 1, 2016. Reminders were sent two additional times. The mid-point and post-program survey (Appendix 2) was sent to participants on November 28, 2016 and March 20, 2017. 23 participants completed the pre-survey, 16 participants completed the mid-point survey, and 19 participants completed the post-program survey. This report describes selected findings across the three surveys. All data from the pre-, mid-, and post-survey are shared in Appendix 3.

### Clinic and clinician demographics\*

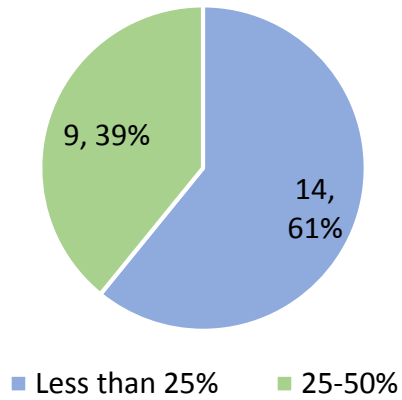
The majority of participants are physicians and female. Over 50% of participants specialize in pediatrics and approximately 30% specialize in family medicine. Over 60% of participants have been in practice for 10 years or less. Nearly 60% of participants are employed by federally qualified health centers. Approximately 40% of clinics are located 50 miles or further from a pediatric in-patient facility.

### Clinician Estimate of Mental Health Disorders Prevalence, Diagnosis, and Frequency of Seeing Patients with Certain Disorders\*

Most participants estimated that less than 25% of pediatric patients within their practice have a mental health disorder (see Figure 1). Roughly half of participants estimate they diagnose a mental health disorder in a previously undiagnosed patient 1-2 times a week and the other half estimate they diagnose a mental health disorder 1-2 times per month (see Figure 2).

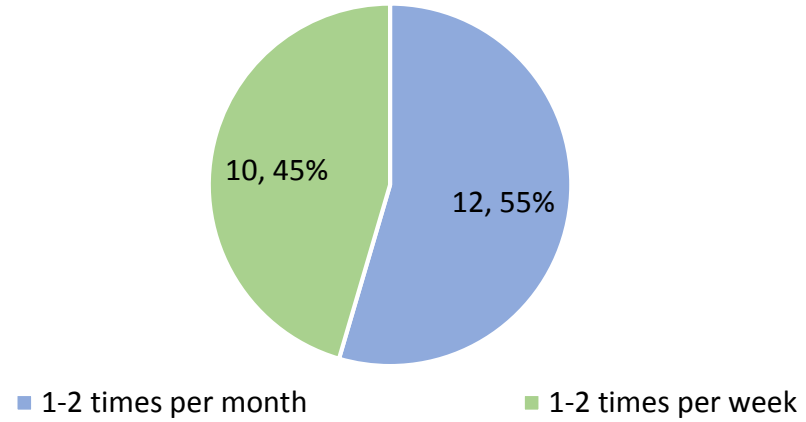
\* The participants completed questions referring to the following areas at each time point: demographics, estimated prevalence of mental health disorders within the practice, and estimated frequency of how often they see patients with certain disorders. These answers did not change significantly between each of the surveys therefore the data from the pre-program survey is being shared.

**Figure 1. Pre-Program Survey.**  
 "\_\_\_\_\_% of pediatric patients within my practice have a mental health disorder" (n=23)



\*Pre-survey data is not different from post-survey therefore only pre-survey data is shown.

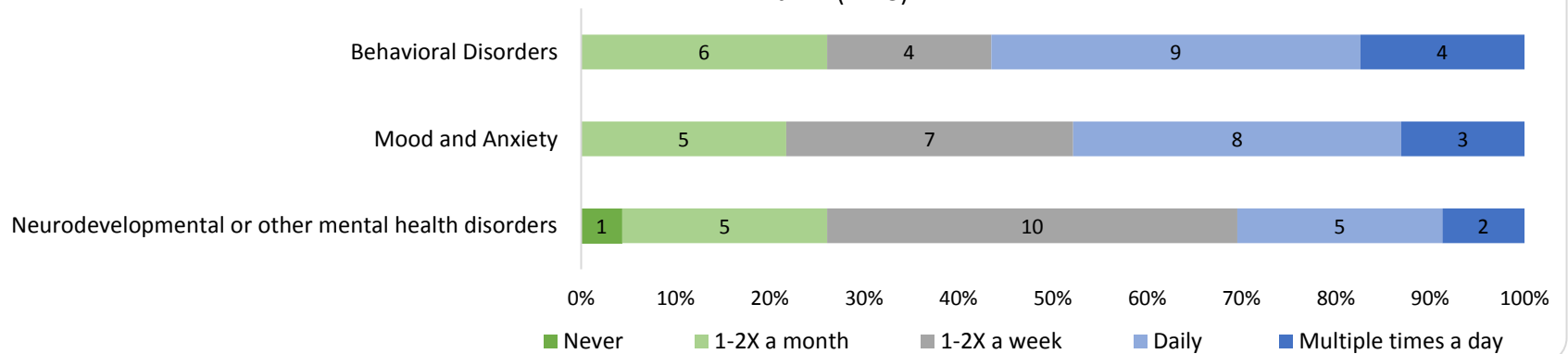
**Figure 2. Pre-Program Survey.** "Estimated frequency with which clinicians in my practice diagnose a mental health disorder in a previously undiagnosed child or adolescent patient." (n=22)



\*Pre-survey data is not different from post-survey therefore only pre-survey data is shown.

Of the broad mental health disorders described, participants estimate that they see behavioral disorders most frequently within their clinics (see Figure 3).

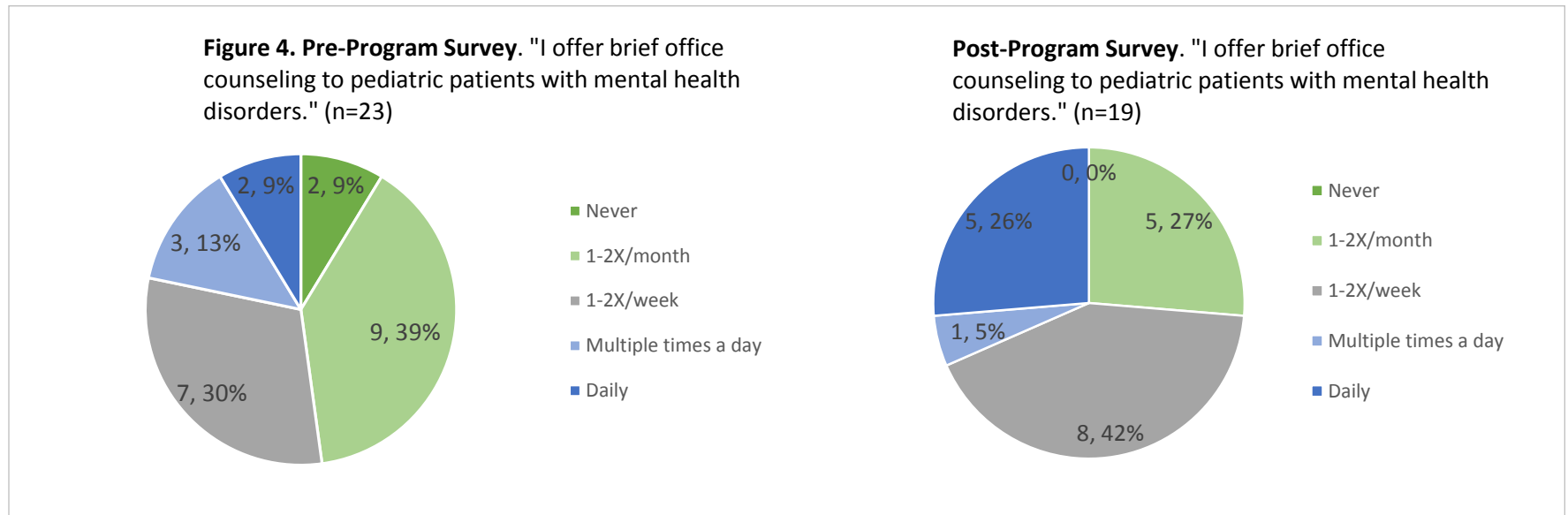
**Figure 3. Pre-Program Survey.** "Estimated frequency with which clinicians in my practice see child or adolescent patients with"..." (n=23)



\*Pre-survey data not different from post-survey therefore only pre-survey data is shown.

## Perception of Referral and Treatment Options for Mental Health Disorders

In the pre- and post-program survey, most participants agreed or strongly agreed that they evaluate the patient themselves and most participants recommend “counseling first and medications later” to pediatric patients with newly diagnosed mild to moderate health disorders. In the pre-survey, there was a wide range of responses for participants regarding the frequency that they offer brief office counseling (see Figure 4). In the post-survey, more clinicians reported offering brief office counseling on a daily basis, fewer clinicians reported offering brief office counseling 1-2 times per month, and no clinicians reported never offering brief office counseling.

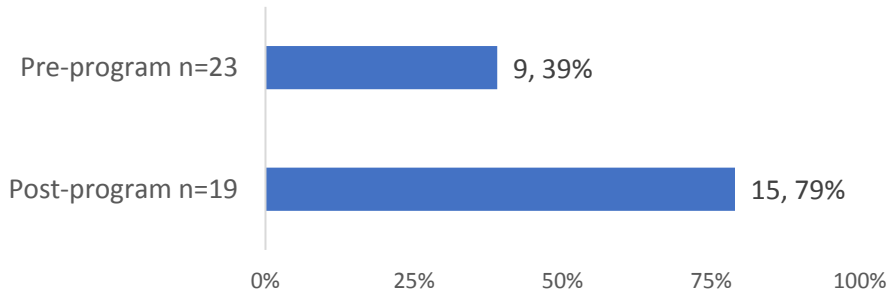


Across all survey time points, the majority of clinicians reported that patients prefer to see “whoever is most available” or their “primary care clinician for brief office counseling”.

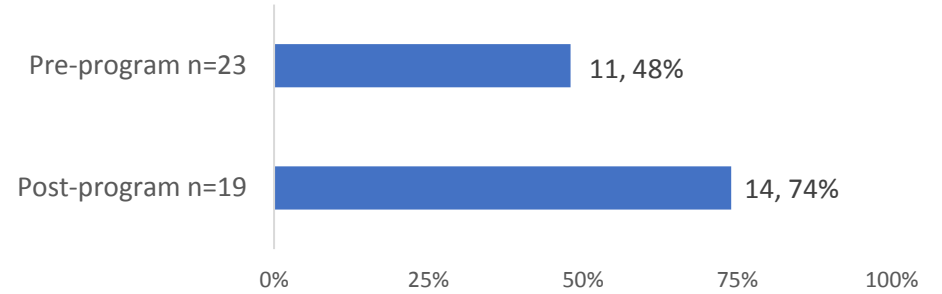
## Comfort Level in Assessing and Treating Broad Categories of Mental Health Disorders

From the pre-program survey to the post-program survey, participants reported improved comfort in assessing and treating mood disorders and behavioral disorders. (See Figure 5 and 6 below.) Participants did not report improvements in comfort assessing and treating neurodevelopmental or other disorders.

**Figure 5.** Percentage of clinicians *very comfortable or comfortable* assessing and treating pediatric patients with **mood and anxiety disorders.**



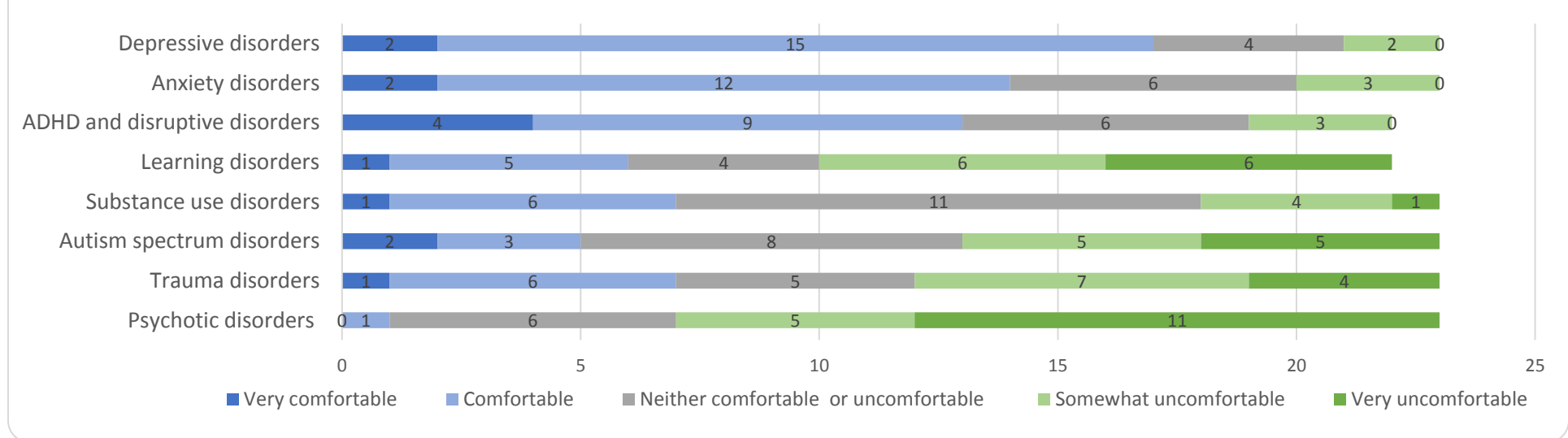
**Figure 6.** Percentage of clinicians *very comfortable or comfortable* assessing and treating pediatric patients with **behavioral disorders.**



**Comfort Level in Assessing and Treating Specific Mental Health Disorders within a Practice**

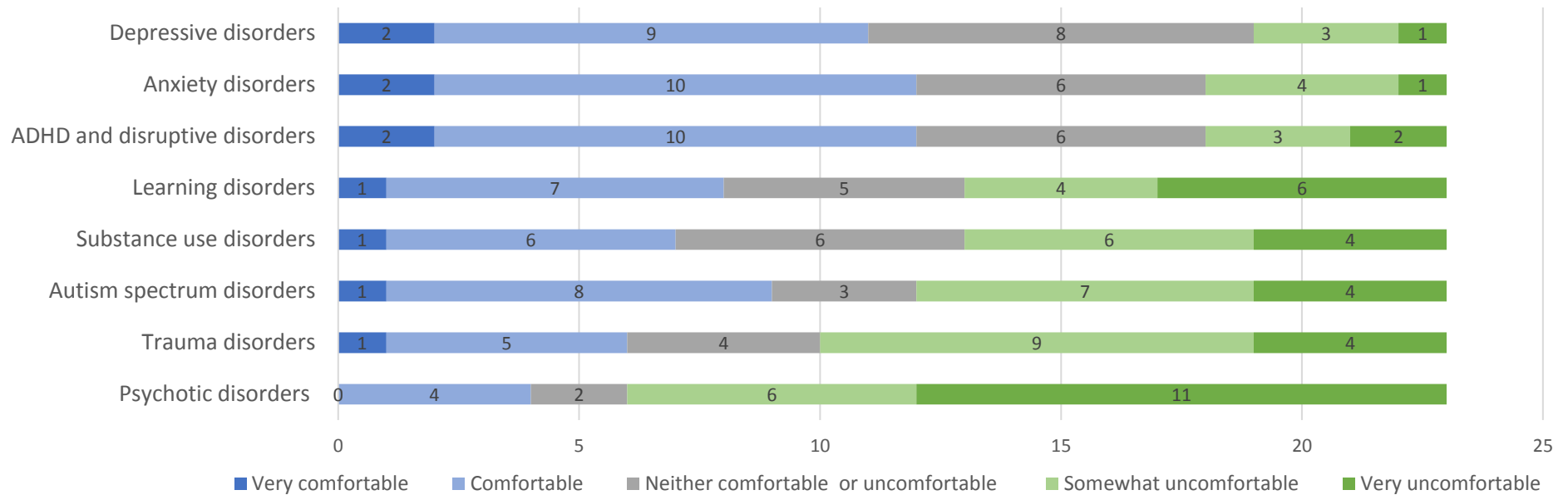
Figures 7 to 10 describe clinicians' self-reported comfort in diagnosing, non-medically treating, and medically treating specific mental health disorders at the time of the pre-survey. In general at the time of the pre- and post-survey, more clinicians felt *comfortable* or *very comfortable* diagnosing or treating patients with anxiety, depression, or ADHD. In contrast, more clinicians felt very uncomfortable or somewhat uncomfortable diagnosing or treating psychotic or trauma disorders. The self-reported comfort level for diagnosing and non-medically treating specific mental health disorders did not change from the pre- to post-survey, therefore only the pre-survey results are shown (Figures 7 and 8.)

**Figure 7. Pre-Program Survey. "I am \_\_\_\_\_ with DIAGNOSING pediatric patients with..." (n=23)**



\*Pre-survey data not different from post-survey therefore only pre-survey data is shown.

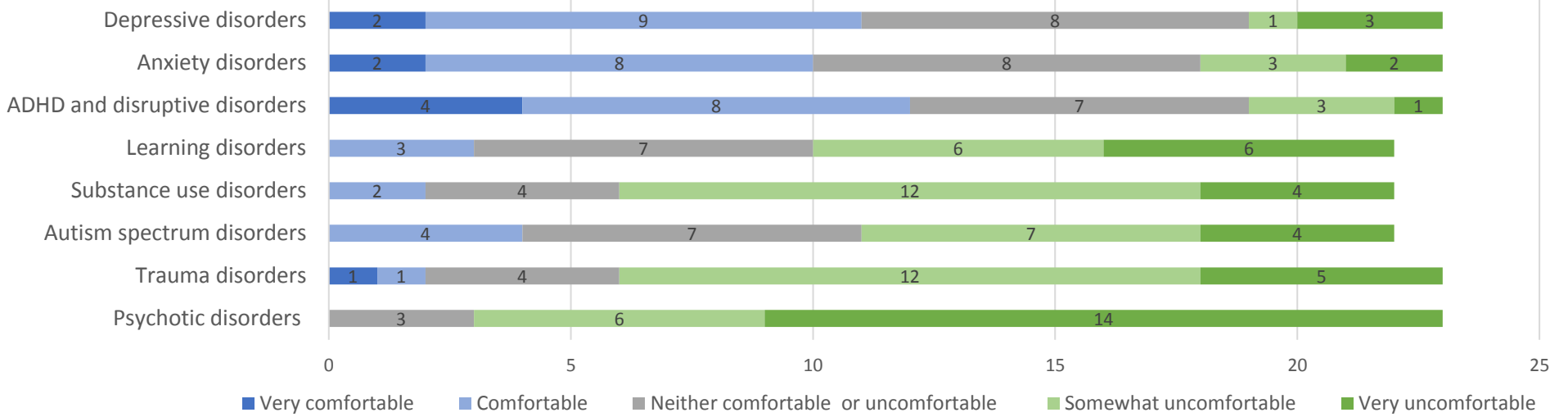
**Figure 8. Pre-Program Survey. "I am \_\_\_\_\_ with NON-MEDICALLY TREATING pediatric patients with..." (n=23)**



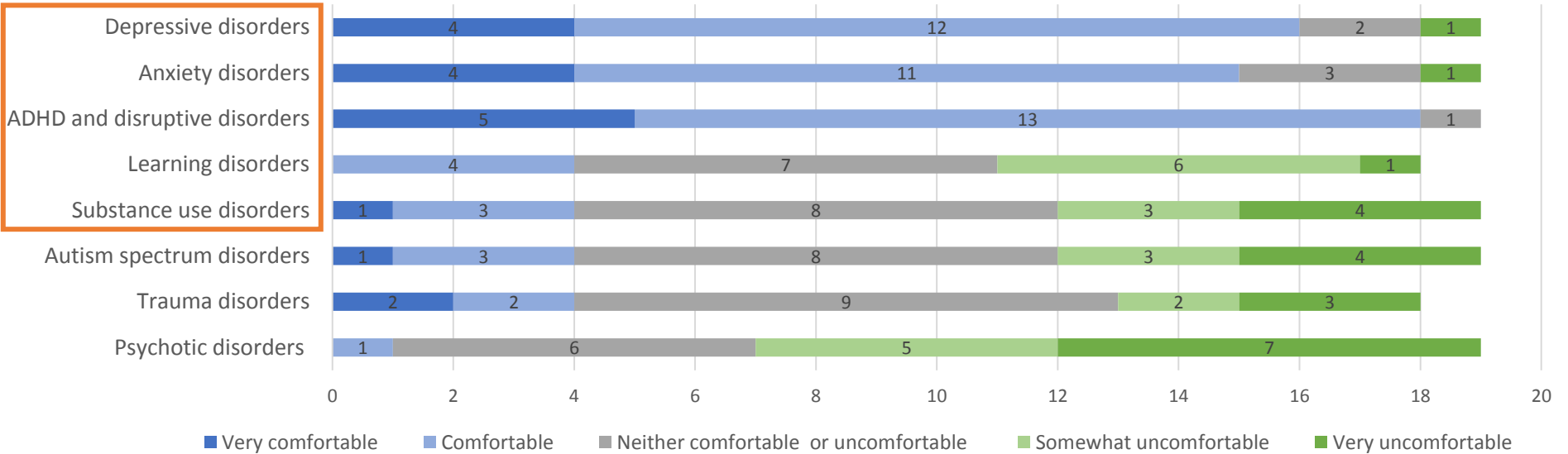
\*Pre-survey data not different from post-survey therefore only pre-survey data is shown.

On the other hand, the self-reported comfort for medically treating depressive disorder, anxiety disorder, ADHD and disruptive disorders, learning disorders, substance use disorder, and autism spectrum disorder improved from the pre-program survey to the post-program survey. (See Figures 9 and 10.) For example, 48% of respondents reported feeling very comfortable or comfortable medically treating depression at the time of the pre-program survey. In the post-survey, 84% of respondents reported feeling very comfortable or comfortable medically treating depression.

**Figure 9. Pre-Program Survey. "I am \_\_\_\_\_ with MEDICALLY TREATING pediatric patients with..." (n=23)**



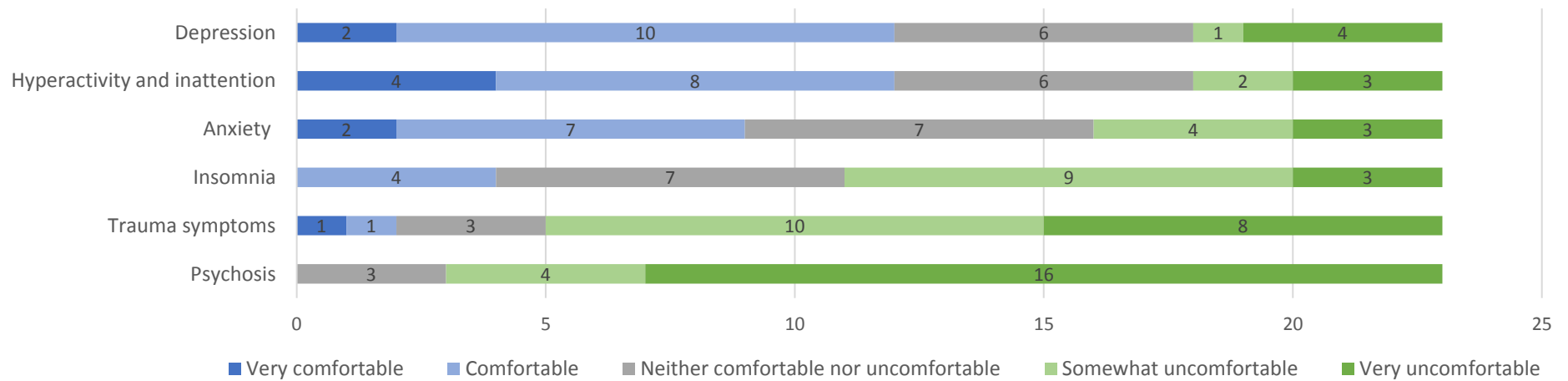
**Figure 10. Post-Program Survey. "I am \_\_\_\_\_ with MEDICALLY TREATING pediatric patients with..." (n=19)**



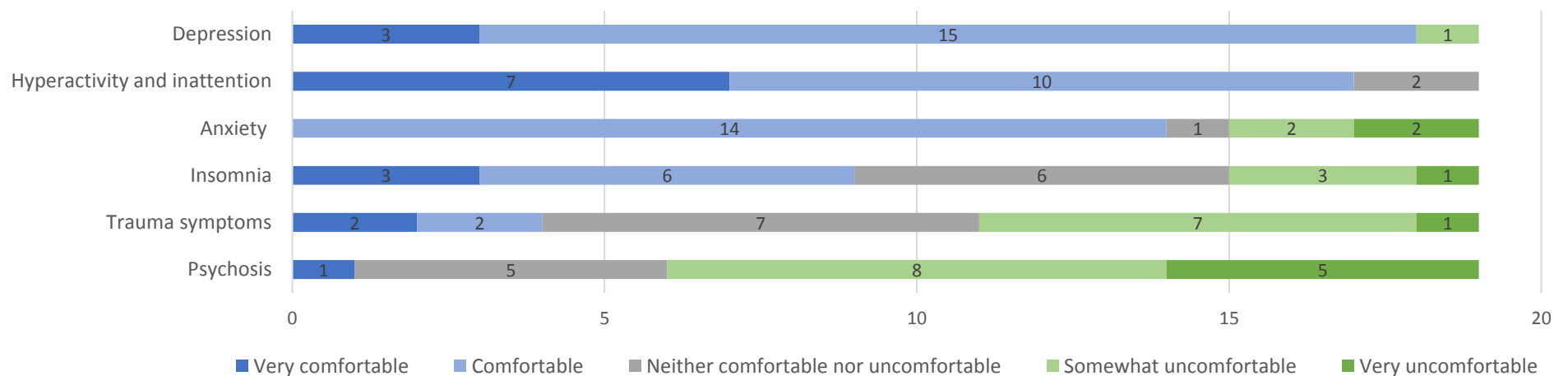
## Clinician Comfort in Prescribing Classes of Psychiatric Medications

Clinicians were most comfortable prescribing depression, hyperactivity and inattention, and anxiety medications and least comfortable prescribing psychosis and trauma symptoms medications at all time points (see Figure 8). From the pre-program survey to the post-program survey, participants reported becoming much more comfortable prescribing depression, hyperactivity and inattention, anxiety, and insomnia medications. (See Figure 11 and 12 below.)

**Figure 11. Pre-Program Survey.** "For each medication class listed below, please answer the question to describe the COMFORT that you prescribe this medication class for children and adolescents:" (n=23)



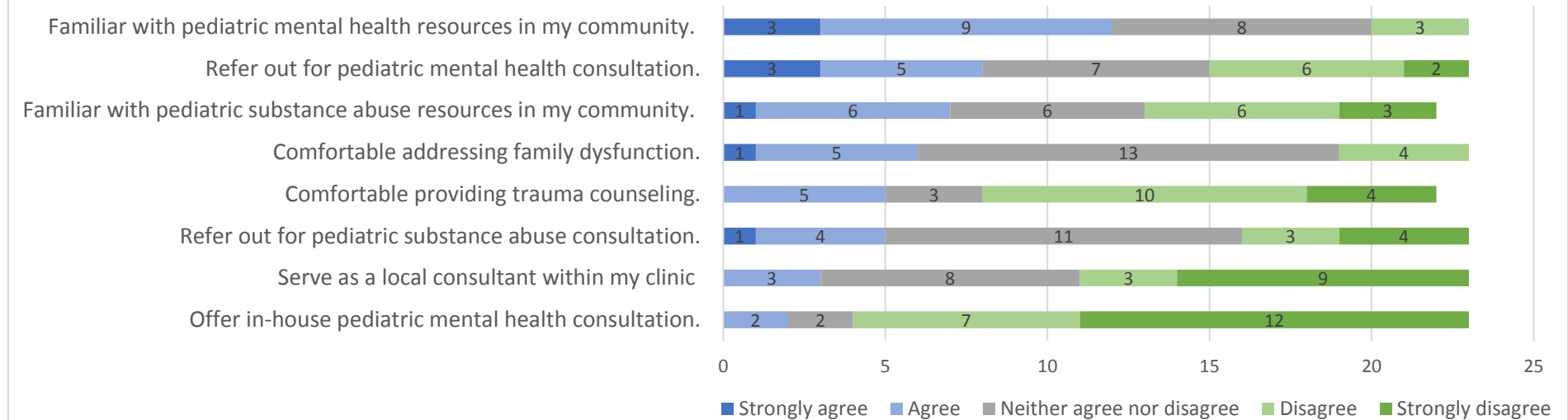
**Figure 12. Post-Program Survey.** "For each medication class listed below, please answer the question to describe the COMFORT that you prescribe this medication class for children and adolescents:" (n=19)



### Perception of Access to Resources and Expertise

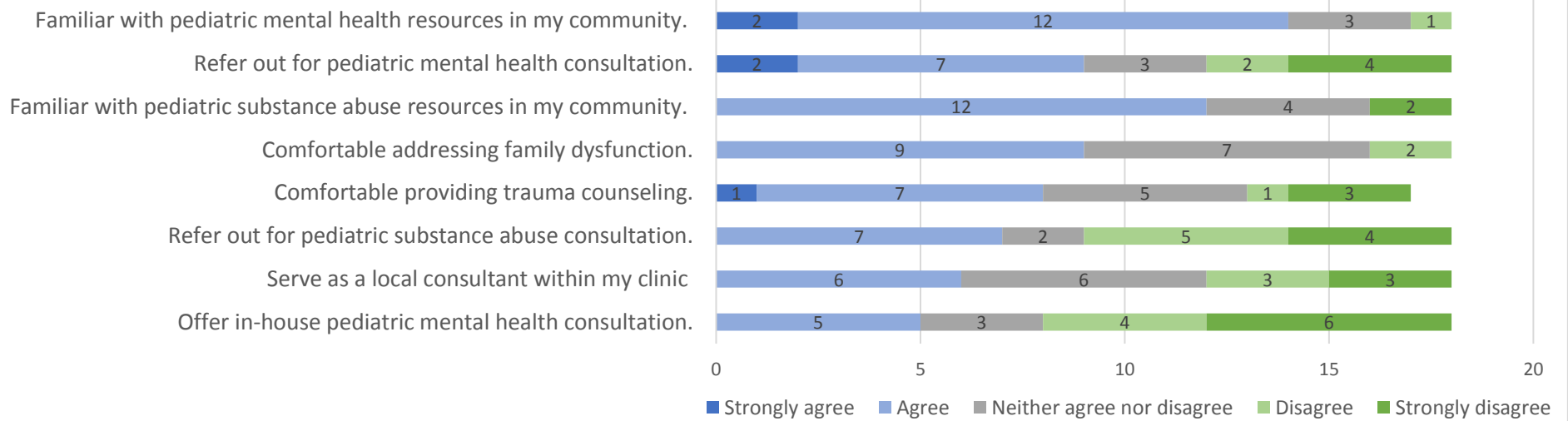
Clinicians reported on their perceptions of their familiarity with pediatric mental health and substance abuse resources in their communities, their clinics' ability to refer out for pediatric mental health consultation, and comfort addressing family dysfunction and providing trauma counseling. The participants' *strongly agreed* or *agreed* that their familiarity with pediatric mental health resources in their community improved from 52% to 78% from the pre-program survey to the post-program survey. The participants' familiarity with pediatric substance abuse resources in their community improved from 30% to 67% from the pre-program survey to the post-program survey. These and other improvements are displayed in Figures 13 and 14 below.

**Figure 13. Pre-Program Survey. "My clinic has adequate ability to..." (n=23)**





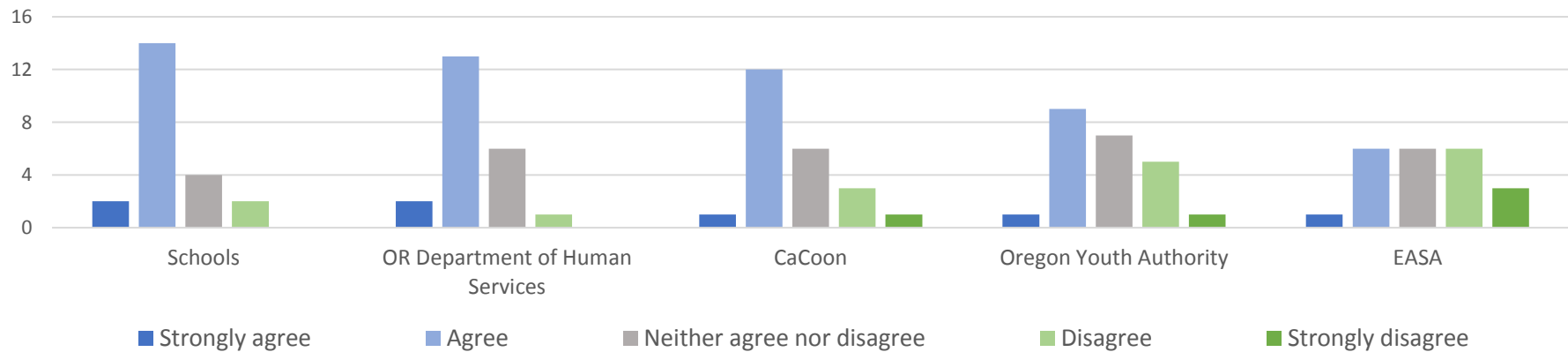
**Figure 14. Post-Program Survey. "My clinic has adequate ability to/is..." (n=18)**



**Clinician or Clinic Team Frequency of Communication**

Clinicians reported on their or their team’s communication with schools, Oregon Department of Human Services, CaCoon, Oregon Youth Authority and Early Assessment and Support Alliance. Their responses did not change from the pre-program to the post-program survey therefore the pre-survey values are shown. (See Figure 15 below.)

**Figure 15. Pre-program Survey. "I and/or my team are comfortable interacting with the following groups regarding my pediatric patient's mental health conditions:" (n=23)**

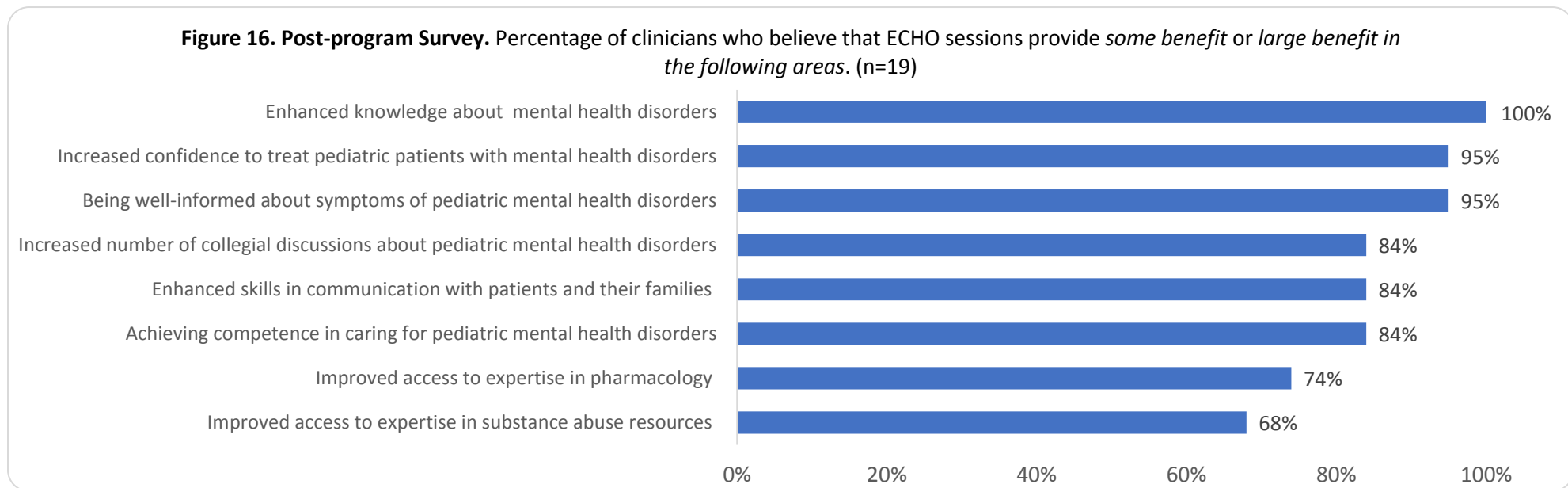


## Overall Perception of Program

In the post-survey, 84% of respondents *agreed* or *strongly agreed* that “clinicians and staff at my clinic are supportive of my involvement in ECHO”, and 95% of clinicians said “participating and learning about a complex chronic disease through ECHO is an effective way for our clinic to enhance its expertise”. As a result of participating in the program, 74% of respondents in the final survey said they provided one or more case consultants to a colleague on a pediatric patient with a mental health disorder.

## Benefits of Participating in ECHO Sessions

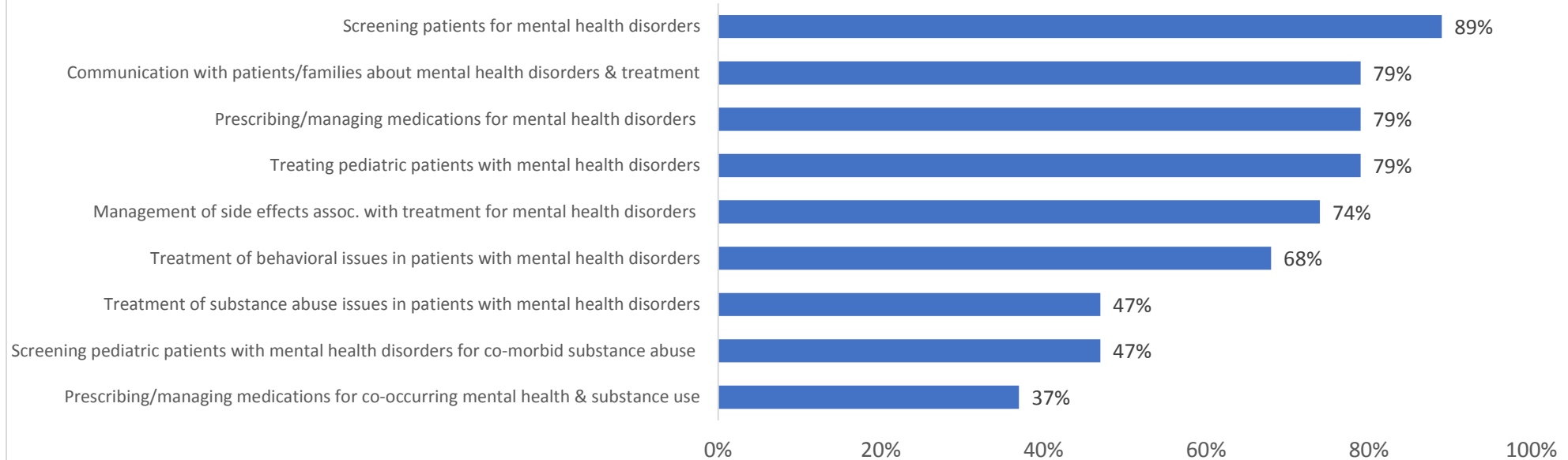
Respondents in the mid- and post-program survey reported that ECHO led to benefits in eight categories that were assessed. Figure 16 below describes the areas that participants felt that ECHO contributed to *some benefit* or *large benefit*.



## Degree that ECHO Sessions Improved Knowledge

The majority of participants reported that their participation in ECHO led to a *high degree of learning* or *very high degree of learning* across a number of areas. The reported knowledge gain increased from the mid-program report to post-program report. (See Figure 17.)

**Figure 17. Post-program Survey.** Percentage of clinicians who agreed that ECHO participation led to *a high degree of learning or very high degree of learning* in the following areas. (n=19)



## Conclusion

The Child Psychiatry ECHO program delivered by Dr. Kenneth Cheng and the team from Oregon Health & Science University engaged 28 clinicians throughout the 30 session program. The participants reported the following improvements in the post-program survey:

- Increased frequency of offering brief office counseling
- Improved comfort in:
  - Assessing and treating mood disorders and behavioral disorders in general
  - Medically treating depressive disorder, anxiety disorder, ADHD and disruptive disorders, learning disorder, substance use disorder, and autism spectrum disorder
  - Prescribing depression, hyperactivity and inattention, anxiety, and insomnia medications
  - Addressing family dysfunction
  - Providing trauma counseling
- Increased familiarity with pediatric mental health and substance abuse resources in their communities
- Increased clinic ability to refer out for pediatric mental health consultation

Clinicians reported that their participation in the ECHO sessions led to the following **benefits**:

- 100% reported enhanced knowledge about management and treatment of pediatric patients with mental health disorders
- 95% reported increased confidence in their ability to manage and treat pediatric patients with mental health disorders
- 95% reported being well-informed about symptoms of pediatric patients with mental health disorders
- 84% reported an increased number of collegial discussions with peers about pediatric patients with mental health disorders
- 84% reported enhanced skills in communication with patients and their families about pediatric mental health disorders
- 74% reported improved access to expertise in pharmacology (in caring for pediatric patients with mental health disorders)
- 68% reported improved access to expertise in substance abuse resources (in caring for pediatric patients with mental health disorders)

Clinicians reported that their participation in the ECHO sessions led to the following **knowledge gains**:

- 89% reported improved knowledge to screen pediatric patients for mental health disorders
- 79% reported improved knowledge to communicate with patient and families about mental health disorders and treatment options in children and adolescents
- 79% reported improved knowledge to prescribe and manage medications for co-occurring mental health and substance use disorders in children and adolescents
- 79% reported improved knowledge to treat pediatric patients with mental health disorders
- 74% reported improved knowledge to manage side effects associated with treatment of mental health disorders in children and adolescents
- 68% reported improved knowledge to treat behavioral issues in pediatric patients with mental health disorders

When asked about their **overall impressions of the program** in the post-survey, 84% of respondents agreed or strongly agreed that “clinicians and staff at my clinic are supportive of my involvement in ECHO”, and 95% of clinicians said “participating and learning about a complex chronic disease through ECHO is an effective way for our clinic to enhance its expertise”.