



**Children's Hospital &  
Medical Center Omaha  
Center for the  
Child & Community**

**PROJECT ECHO:  
DEPRESSION IN THE  
PRIMARY CARE SETTING**



**Evaluation Summary**

**Prepared by  
RadeckiResearch LLC  
November 2021**

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Center for the Child & Community  
Children's Hospital & Medical Center

**Prepared for**

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## What is Project ECHO?

Project ECHO® (Extension for **C**ommunity **H**ealthcare **O**utcomes) is an evidence-based telementoring program designed to create communities of learners by connecting healthcare providers and multidisciplinary subject matter experts. Combining didactic and case-based presentations with clinical management and



support tools, ECHO promotes an “all teach, all learn” philosophy. Gathering virtually through widely available videoconference technology, healthcare and other professionals build knowledge and increase self-efficacy on diseases, conditions, and/or healthcare processes. The ECHO model is in use globally with an aim to improve professionals’ ability to manage conditions, create sustainable change, and shape better outcomes for pediatric and adult populations.

### Project ECHO at Children’s Hospital & Medical Center

Project ECHO at Children’s Hospital & Medical Center is coordinated by the **Center for the Child & Community** (Center) with a mission to empower communities to value and support the health, safety, and well-being of every child. The Center launched their first ECHO in 2017 and has since become a leader in the provision of high-quality ECHO programs serving physicians and other professionals, many of whom provide care in rural and medically underserved areas. Over the past 4 years, Children’s ECHO offerings included timely topics such as childhood obesity, behavioral health, sports medicine, child abuse and neglect, school health, acute flaccid myelitis (AFM), and COVID-19.

### Project ECHO: Depression in the Primary Care Setting

Depression among children and young people is a growing concern. Recent [Youth Risk Behavior Survey data](#) indicate that more than 1 in 3 students reported persistent feelings of sadness or hopelessness in 2019; approximately 20% of students contemplated suicide. In October 2021, the American Academy of Pediatrics and partner organizations declared youth mental health a [national emergency](#), largely attributable to ongoing impacts of the COVID-19 pandemic.

Pediatricians play a key role in the physical and mental health of young people and are often among the first professionals to identify, diagnose, and treat mental health conditions, including depression. Recognizing that opportunities to obtain knowledge and skills relevant to current, evidence-based guidelines and recommendations may be

limited for some due to factors such as distance and cost, the Children’s Project ECHO team developed **Project ECHO: Depression in the Primary Care Setting (Depression ECHO)** to support Nebraska’s pediatricians and other healthcare professionals who diagnose, care for, and manage children and youth with depression and related conditions. Depression ECHO, implemented from May 2021 – July 2021, was the second in a series of ECHOs devoted to specific behavior health concerns (*Project ECHO: Anxiety in the Primary Care Setting* was offered in fall 2020).

### Depression ECHO Series and Curriculum Overview

A multidisciplinary faculty facilitated Depression ECHO’s 5-session curriculum, addressing topics of current and emerging importance to healthcare professionals.

Depression ECHO convened every 2-3 weeks for three consecutive months. Each 60-minute ECHO session featured a brief faculty-led didactic segment followed by de-identified patient medical case presentation and discussion, allowing participants to learn from subject matter experts *and* each other. Children’s ECHO program staff recruited participants from previous ECHO series, the NE Chapter of AAP, and the Children’s Hospital & Medical Center network. In addition to clinical content and supportive resources, participation benefits included networking and continuing medical education (CME) credits.

**Depression ECHO Curriculum Topics**

- Introduction to Depression
- Suicide Risk Assessment
- Psychotherapy of Depression
- Psychopharmacology of Depression
- DMDD vs MDD vs BPAD (& Other Alphabet Soup)

**Depression ECHO Faculty and Staff**

- Mike Vance, PhD
- Jen McWilliams, MD
- Debra J Tomek, MD, FAAP
- Kim McClintick, MSN, RN
- Holly Dingman, MS, RD
- Chrissy Tonkinson, MPH

### Depression ECHO Program Evaluation

To assess participant experience and program impacts, the Center engaged an independent consultant to evaluate Depression ECHO throughout the program period. Given the continued burdens on healthcare professionals posed by the COVID-19 pandemic, the Children’s ECHO team, in collaboration with the project evaluator limited evaluation activities to attendance tracking, post-session CME surveys, and a post-program participant survey.

An ongoing challenge across pediatric ECHOs is engaging busy professionals in program evaluation. Due to the small sample size obtained in response to the CME

surveys (n=14) and post-program surveys (n=12), results may not reflect the full range of participant experiences and should be interpreted with caution. Detailed result summaries from the post-session CME surveys and post-program survey are available in Appendix A and Appendix B, respectively.

## Depression ECHO Evaluation: What We Learned

### Participation

Forty-two healthcare professionals enrolled in Depression ECHO; average session attendance = 20. Participants identified their professional role as physician (38%), nursing (5% advanced practice nurse; 5% registered nurse), or other (52%). At program completion, Children’s awarded a total of 114 Continuing Medical Education credits across Depression ECHO participants.

### Participant Experience

Based on post-program surveys, the majority of participants agreed or strongly agreed that Depression ECHO:

100%



- Provided content **relevant** to their patient population
- Provided **evidence-based content**
- Was a **valuable use of time**
- Improved** participant ability to **treat** and **manage patients**
- Improved** subject matter **understanding**

>90%



- Made participant **better at their job**
- Improved** subject matter **interest**

Based on comments from the post-program survey, Depression ECHO didactic content identified as most useful pertained to treatment, motivational interviewing, and available services and resources (including psychiatric consultation through Children’s).

## Outcomes and Impacts

Beyond attendance and participant satisfaction, outcomes and impacts are important to an ECHO program's success. For example, did individual learners report improvements in knowledge and change the way that they care for patients?

Depression ECHO **improved** participants' self-reported **knowledge** regarding all aspects of depression-related identification, treatment, and management assessed. Learners reported **increases of ≥40 percentage points**, pre- to post-ECHO, in the following areas (see Appendix B for complete results regarding knowledge changes):

- Local depression and suicide data
- Children's Hospital and Medical Center efforts to address depression and suicide among Nebraska youth
- Strategies for interaction with someone struggling with depression and suicidal ideation
- FDA-approved medications for depression in children and adolescents
- Depression medication side effects and black box warnings
- Treatment options for disruptive mood dysregulation disorder (DMDD) vs bipolar affective disorder (BPAD)
- Published literature regarding non-suicidal self-harm (NSSH)

All post-program survey participants **affirmed intent to change ≥1 aspect care** for patients with depression-related concerns. The majority identified a change in best practice/guideline (58%) or a change in professional practice (41%); fewer planned changes in policies or procedures (8%).

Specific, anticipated practice changes identified in post-session surveys included:

- Performing a better history regarding suicide attempts and self-harm
- Better safety planning
- Using Lexapro more

While 50% of respondents reported no anticipated barriers to change, others cited obstacles such as time, lack of coworker or management support, limited community resources, and lack of timely access to referral sources.

## Conclusions and Next Step Recommendations

Depression ECHO evaluation results suggest a positive participation experience for learners and improvements to healthcare provider knowledge in identifying, treating and managing young people with depression in the pediatric practice setting. Among participants who completed evaluation surveys, Depression ECHO resulted in **better understanding the mental health concerns** of Nebraska youth and equipped learners with **strategies** and **resources** to support children and adolescents with depression and their families.

Despite the additional burdens that the COVID-19 pandemic has placed on healthcare professionals over the past 18 months, participants reported that Depression ECHO was a valuable use of time and affirmed interest in attending a future ECHO series focused on attention-deficit/hyperactivity disorder (ADHD).

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*Another great series!  
Thank you for this Project ECHO series!*

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Of those who completed the post-program survey, 50% reported attending Children's original behavioral health ECHO series and 58% participated in Anxiety ECHO, suggesting that Depression ECHO attracted a subset of new audience members and that Children's efforts to broaden ECHO outreach may be proving successful. With increased reliance on and acceptance of virtual training as a result of the COVID-19 pandemic, future ECHOs may represent an opportunity to engage an even larger segment Nebraska's pediatricians and other healthcare professionals who could benefit from Children's expertise and resources.

## Project ECHO: Depression in the Primary Care Setting Post-Session/Continuing Medical Education Survey Summary

### Number of surveys submitted by ECHO clinic session

Curriculum Content/Topic	Number of surveys submitted
Introduction to Depression – May 6, 2021	0
Suicide Risk Assessment – May 20, 2021	11
Psychotherapy of Depression – June 3, 2021	0
Psychopharmacology of Depression – June 17, 2021	3
DMDD vs MDD vs BPAD (& Other Alphabet Soup) – July 1, 2021	0
<b>Total</b>	<b>14</b>

### ECHO participant professional role (n=14)

	Number
Physician	6
Nurse Practitioner	3
Nurse	3
Other	2

### ECHO Session Experience (# of participants who agree/strongly agree unless indicated)

<b>Presentation</b>	
The stated educational objectives were met	14
The speaker(s) demonstrated mastery of the subject	14
Teaching methods and presentation skills were effective	14
<b>Content and Format</b>	
The content was evidence-based	14
Presentation was given without commercial bias or influence	14
Information will improve my ability to treat and manage my patient	14
The material presented is relevant to my practice	14
The educational format for this activity was appropriate for the content	14
<b>Outcomes</b> (Attending ECHO session increased/improved)	
Knowledge of this subject	13
Competency (ability to apply the knowledge)	14
Performance (what is actually done in practice)	13
Patient outcomes (ability to positively impact health status)	14



## Appendix A

### **Commercial Support/Disclosure** (*number of participants selecting yes*)

The conflict of interest or lack thereof declared by planners and speakers	14
Commercial support or lack thereof was acknowledged accordingly	14

## **Open-Ended Question Responses by Session**

### **Anticipated Practice Change(s) Related to Session Content**

5/20/21	<ul style="list-style-type: none"><li>• It helps with some of the challenges in a smaller community that we face</li><li>• Perform a better history when suicide attempt occurred.</li><li>• Inquire more about whether past suicide attempts, self-harm, etc. have been impulsive vs. planned</li><li>• Increased my knowledge of suicide and assessment tools</li><li>• Better safety planning</li><li>• My approach with discussing suicide</li><li>• Developing systematic approach to conducting an interview</li><li>• Change my approach when interviewing the patient</li><li>• Better suicidality risk assessment</li></ul>
6/17/21	<ul style="list-style-type: none"><li>• How to wean medications safe</li><li>• Using Lexapro more</li></ul>

### **Perceived Barriers to Implementing Change(s)**

5/20/21	<ul style="list-style-type: none"><li>• It is difficult to get the services talked about in [town]. Long waiting lists and feel like i am having to do more than I wish. Feel that they could be better served with the services.</li><li>• Time -- takes lots, never have enough in a busy primary care clinic setting; Time (2)</li><li>• Some patients are not willing to disclose details</li><li>• Working on comfort level with asking difficult questions.</li><li>• Lack of access to mental health</li><li>• NA</li></ul>
6/17/21	<ul style="list-style-type: none"><li>• None (2)</li></ul>

### **Suggested Future Activities, Topics, Speakers or Interest in Presenting**

5/20/21	<ul style="list-style-type: none"><li>• None</li></ul>
6/17/21	<i>No comments</i>

## Project ECHO: Depression in the Primary Care Setting Post-Program Survey Summary<sup>1</sup>

### ECHO Experience

	<b>% Agree/ Strongly agree</b>
Depression ECHO content was relevant to my patient population	100
Depression ECHO was a valuable use of my time	100
Depression ECHO provided evidence-based content	100
Depression ECHO met stated objectives	100
Depression ECHO improved my ability to treat and manage my patients	100
My <i>understanding</i> of the subject matter has improved as a result of participating in Depression ECHO	100
Depression ECHO provided an appropriate balance between instruction and practice	100
I was satisfied with this training overall	100
My <i>interest</i> in the subject matter has improved as a result of participating in Depression ECHO	92
Depression ECHO makes me better at my job	92
Participating in Depression ECHO increased my professional satisfaction	83
Participating in Depression ECHO made me feel less isolated	75

<sup>1</sup> Sample size = 12

## Intent to Change as a Result of Depression ECHO Participation

Planned changes as a result of Depression ECHO participation	% Yes
Change in best practice or guideline	58
Change in professional practice	41
Change in policy or procedure	8
Other change ( <i>helps me understand better</i> )	8
No change	0

Anticipated barrier(s) to change	% Yes
No barrier(s) identified	50
Lack of coworker support	17
Lack of management support	8
Insufficient knowledge	8
Insufficient skill set	8
Other barriers (specified)	30
<ul style="list-style-type: none"> <li>• <i>Hard in smaller community to have access to services needed</i></li> <li>• <i>Ongoing issue related to timely behavioral health referrals when patients are in "crisis mode"</i></li> <li>• <i>Lack of time to follow-up with patients</i></li> <li>• <i>Time constraints</i></li> </ul>	

Supports needed to overcome barriers [n=5]
<ul style="list-style-type: none"> <li>• <i>Admin/mgmt agreement that depression screening is a priority</i></li> <li>• <i>Availability of counselors or therapists difficulty getting in in timely manner</i></li> <li>• <i>Continued reading and experience treating youth with depression</i></li> <li>• <i>Designated nursing staff to help manage patient population</i></li> <li>• <i>Practice delegating some tasks to the rest of my team</i></li> </ul>

## Retrospective Self-Reported Knowledge Change as a Result of Depression ECHO Participation

<b>Knowledge before and after ECHO participation<sup>2</sup></b> 5-point scale – <i>Not very knowledgeable</i> to <i>Very knowledgeable</i>	<b>Before ECHO Participation</b> (% <b>Knowledgeable to Very knowledgeable</b> )	<b>After ECHO Participation</b> (% <b>Knowledgeable to Very knowledgeable</b> )	<b>Percentage Point Change, Pre- to Post-ECHO</b>
Local depression and suicide data	18	91	73↑
Children’s Hospital and Medical Center efforts to address depression and suicide among Nebraska youth	18	73	55↑
The connection between depression and suicide	64	91	27↑
The assessment process and treatment options following a suicide attempt	46	82	36↑
Strategies for interaction with someone struggling with depression and suicidal ideation	46	91	45↑
Use of motivational interviewing (MI) in patient encounters involving youth depression	27	64	37↑
FDA-approved medications for depression in children and adolescents	33	88	55↑
Treatment initiation and continuation phases for depression in youth and adolescents	46	70	24↑
Depression medication side effects and black box warnings	60	100	40↑
Treatment options for disruptive mood dysregulation disorder (DMDD) vs bipolar affective disorder (BPAD)	0	56	56↑
Published literature regarding non-suicidal self-harm (NSSH)	13	71	58↑

<sup>2</sup> Note: Sample size for knowledge-related questions ranged from 7-11; participants who missed an ECHO session during which specific content was covered were instructed to select an “NA” response which was excluded from computation of descriptive statistics

## **Most Valuable Aspects of Depression ECHO**

- *Better knowledge of resources available at Children's*
- *DMDD discussion*
- *Dr. McWilliams - any topic she addresses is extremely useful*
- *Expertise of the presenters on best practice AND the motivational interviewing guidance; also the relationship and availability of consultative psychiatric service*
- *Gaining knowledge*
- *Hearing local stats for suicide attempts & success and how Children's has increased screening for depression/suicidality.*
- *I really enjoyed hearing from the variety of presenters.*
- *Interviewing techniques*
- *Reviewing how to approach medical treatment*
- *The entire course was very valuable as I am new to my role and this topic*

## **Least Valuable Aspects of Depression ECHO**

- *Services available in Omaha*
- *Not applicable; nothing; NA; none; not sure (7)*

## **Unanswered Problems or Concerns Specific to Caring for Children with Depression**

- *Experience getting the child/youth through successful treatment*
- *How to have enough resources for all the kids who need them*
- *How to manage patients who don't want to follow-up or follow-through on plan*
- *Services*
- *Nothing I can think of right now; NA; none (4)*

## **Additional Supports Needed to Care for Children with Depression Not Provided by Depression ECHO**

- *Availability of a team*
- *I think we need more in clinic support - nurses to check in on patients*
- *More therapists available*
- *Timely consultation from therapists and psychiatrists*
- *We can always use more timely behavioral health resources in the community. The other thing that comes to mind is time, which is hard to come by; perhaps creation of a system where a provider w/an unexpected depression/suicidal patient in clinic can off-load less urgent appointment(s) to a partner with availability*
- *NA; none (3)*

## **Additional Feedback and Comments about Depression ECHO**

- *Another great series!*
- *Great job. Thank you for offering this.*
- *I was sorry to miss the pharmacotherapy session due to unexpected patient care issues.*
- *Thank you for this Project ECHO series!*
- *Thanks !*

## Participant Demographics [n= 12 unless indicated]

	<b>% unless otherwise indicated</b>
<b>Number of Depression ECHO sessions attended<sup>3</sup></b>	75% attended 4+ sessions (8% attended only 1 session)
<b>Attended Children’s 2018-2019 Behavioral Health ECHO series</b>	50% yes
<b>Attended Children’s 2020 Treating Anxiety in the Primary Care Setting ECHO series</b>	58% yes
<b>Professional Training</b>	
Physician (MD/DO)	75
Social Work	8
Nursing (RN)	17
<b>Professional Position</b>	
Primary care provider who exclusively sees children and youth in an office-based or clinic-based ambulatory care setting	67
Primary care provider who exclusively sees children, youth, and adults an office-based or clinic-based ambulatory care setting	17
Specialist/subspecialist	8
Other ( <i>Nurse care manager</i> )	8
<b>Primary Practice Type</b>	
Pediatric group practice: > 10 pediatricians	42
Nongovernment hospital/clinic	25
Solo or two-physician practice	8
Pediatric group practice: 3-5 pediatricians	8
City/county/state government hospital/clinic	8
Other ( <i>NCM</i> )	8

<sup>3</sup> The Depression ECHO series included 5 sessions

## Appendix B

<b>Practice Location</b>	
Urban, inner-city	25
Urban, not inner-city	33
Suburban	25
Rural	17
<b>Practice is a Medical Home [n=11]</b>	73
<b>Practice is a <i>Certified</i> or <i>Accredited</i> Medical Home</b>	55
<b>Number of Years in Professional Position</b>	M=17 years (range=1-35 years)
<b>Gender</b>	
Female	83
Male	17
<b>Race   Ethnicity</b>	
Asian	17
Black or African American	0
Hispanic or Latinx	0
Middle Eastern or North African	0
Native American or Alaska Native	0
Native Hawaiian or Other Pacific Islander	0
White	83
Prefer to self-describe	0
<b>Estimated % of patient population characterized as underserved [n=11]</b>	M=29% (range=5-90%)
<b>Estimated number of children/youth seen in an average month [n=11]</b>	M=140 (range=2-400)
<b>Estimated number of children/youth seen in an average month with depression-related concerns</b>	M=14 (range=2-40)
<b>Interest in joining a future Children's ECHO focused on ADHD [n=10]</b>	100% Yes