Paediatric Project ECHO® for Complex Care: Acceptance and impact of a virtual medical education program for Canadian healthcare providers

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Background

What is Project ECHO®?
“Extensions for Community Healthcare Outcomes”
Innovative model for medical education that expands access and capacity to provide evidence-informed care to remote and underserved communities.

How does the ECHO® model work?
Virtually connects an interprofessional team of specialists at an academic “Hub” to community healthcare providers called “Spokes”.

Paediatric Project ECHO® for Complex Care

Focus on management of children with medical complexity (CMC)

Program Structure

TeleECHO Clinics (monthly)
Didactic + Patient case + Best practice recommendations

Methods

• Study approved by local Research Ethics Board.
• Prospective, mixed-method study with repeated measures at baseline and 6-months (6M).
• Data collection managed via REDCap.
• Participants provided with $5 gift card for 6M survey.

Results

Participants

![Participants Chart]

<table>
<thead>
<tr>
<th>Years of Practice</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>6 (12%)</td>
</tr>
<tr>
<td>1-4 years</td>
<td>12 (23%)</td>
</tr>
<tr>
<td>5-10 years</td>
<td>5 (9%)</td>
</tr>
<tr>
<td>More than 10 years</td>
<td>28 (54%)</td>
</tr>
<tr>
<td>Not applicable</td>
<td>1 (2%)</td>
</tr>
</tbody>
</table>

Table 1. Years of practice, n = 52

Acceptability and Satisfaction at 6M

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
<th>Min-Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Involvement in Paediatric Project ECHO® is a worthwhile experience for me</td>
<td>6.2</td>
<td>0.7</td>
<td>5-7</td>
</tr>
<tr>
<td>2. I would recommend the program to my colleagues.</td>
<td>6.3</td>
<td>0.6</td>
<td>5-7</td>
</tr>
<tr>
<td>3. The program has connected me with peers and diminished my professional isolation.</td>
<td>5.0</td>
<td>1.1</td>
<td>3-7</td>
</tr>
<tr>
<td>4. Paediatric Project ECHO® has created a supportive community of practice.</td>
<td>5.7</td>
<td>0.9</td>
<td>4-7</td>
</tr>
<tr>
<td>5. The program is an effective way for me to learn.</td>
<td>5.8</td>
<td>0.6</td>
<td>5-7</td>
</tr>
<tr>
<td>6. I have learned new information through the program.</td>
<td>6.1</td>
<td>0.6</td>
<td>5-7</td>
</tr>
<tr>
<td>7. I have learned best practice care through the program.</td>
<td>5.7</td>
<td>0.7</td>
<td>4-7</td>
</tr>
<tr>
<td>8. I respect the knowledge of the program facilitators.</td>
<td>6.4</td>
<td>0.6</td>
<td>5-7</td>
</tr>
</tbody>
</table>

Table 2. Acceptability and satisfaction with TeleECHO Clinics, n=52

Results (Continued)

Knowledge Changes at 6M

For my scope of practice, I currently have an appropriate level of knowledge about...

Self-efficacy Changes at 6M

For my scope of practice, I feel confident in my ability to provide...

Practice Level Impact at 6M

<table>
<thead>
<tr>
<th>Item</th>
<th>Neutral impact</th>
<th>Somewhat positive impact</th>
<th>Positive/Strongly positive impact</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>My ability to provide good care to CMC</td>
<td>35%</td>
<td>44%</td>
<td>19%</td>
<td>6%</td>
</tr>
<tr>
<td>My satisfaction managing CMC</td>
<td>35%</td>
<td>37%</td>
<td>29%</td>
<td>6%</td>
</tr>
<tr>
<td>My ability to have a positive professional impact in the community</td>
<td>29%</td>
<td>34%</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>The reputation of my practice in the community</td>
<td>51%</td>
<td>44%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Expanded access to management for CMC in my community</td>
<td>60%</td>
<td>58%</td>
<td>0%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Figure 4. Reported practice level impact at 6 months, n=26

Results (Continued)

“Locally, it is difficult to gather together to discuss complex issues with other service agencies. This provided me with the opportunity to do so. The extra bonus was that sessions were recorded for me to view at a later date/time.”

Conclusion

- Paediatric Project ECHO® for Complex Care participants report high acceptability and satisfaction.
- Increases in knowledge and self-efficacy observed at 6M.
- Impact at 12-month follow-up is currently being assessed.

Acknowledgements

- Project funded by the Ontario Ministry of Health and Long-Term Care.
- Thank you to Paediatric Project ECHO® participants!

Objective

To evaluate performance-related outcomes of Paediatric Project ECHO® for Complex Care:
- Acceptability and satisfaction
- Changes in provider knowledge and self-efficacy
- Practice impact related to managing complex cases.

Program Structure

TeleECHO Clinics (monthly)
Didactic + Patient case + Best practice recommendations

Children with Medical Complexity (CMC)