Use of Telehealth to Influence Healthcare Delivery in the School Setting

October 15, 2015

Telehealth Summit of SC
Overview of program

Program perspectives

Case study

Progress across SC

Step by step guide

Patient Testimonials
What is School-Based Telehealth?

- Healthcare for children in the school setting using telehealth technologies
- Video conferencing and special stethoscopes and cameras are used
## Evidence for School-Based Telehealth

<table>
<thead>
<tr>
<th>Chronic Disease</th>
<th>Students</th>
<th>Parents</th>
<th>School District</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Reduced asthma attacks</td>
<td>• Reduced absences</td>
<td>• Less missed work</td>
<td>• Positive PR</td>
</tr>
<tr>
<td>• Fewer ED visits for Type 1 Diabetes</td>
<td>• Improved classroom behaviors</td>
<td>• Cost savings</td>
<td>• Increased communication</td>
</tr>
<tr>
<td></td>
<td>• Reduced ED visits</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Models of School-Based Telehealth
How does it work?
School Nurse/Telepresenter role

- Select patients to refer
- Confirm permission for the visit and invite parent/guardian to participate
- Gather a brief, general history
- Act as Telepresenter
  - Obtain vital signs
  - Operate telemedicine peripherals during the exam
- Provide case management support
What type of equipment is used?

Horus scope Exam Camera and Otoscope
What type of equipment is used?

Digital Otoscope
What type of equipment is used?

Exam Camera
What type of equipment is used?

Electronic Stethoscopes

- Digital vs analog
- Bluetooth vs wired
What type of care is being provided?

- Sick visits for most low-acuity conditions
  - Over 90% of visits are able to be completed with telemedicine alone
- Specialty Care
  - Access to pediatric specialists
  - Children with special healthcare needs
- Mental health
- Chronic disease management
  - Focus on asthma
  - Respiratory therapy/asthma education
  - Specific interventions early in the school year
Provider Considerations

Provider-patient relationship via video conferencing, is it possible?

- American College of Physicians (ACP)
  “A telemedicine encounter itself can establish a patient-physician relationship through real-time audiovisual technology.”

- American Academy of Pediatrics (AAP)
  “It is reasonable to conclude that a physician-patient relationship has been established... if the remote consultant participates in the history, examination, diagnosis, and development of the treatment plan.”
Provider Considerations

- Studies on Provider Patient Communication
  - No difference in length of visit
  - Fewer utterances of empathy/praise
  - Provider training is needed

- Personal experience
Provider Considerations

- **Preservation of standard of care**
  - Telemedicine does not change the standard of care
  - Guidelines and protocols for telemedicine (ATA, AAP SOTC)
  - Acknowledgement of limitations of tSBHC
    - Refer to in person care when indicated

- **Integration with medical home**
  - Invite local providers to participate
  - Partnering with PCP via communication
Insurance Information

- SC Medicaid covers the visits
- Private insurance coverage varies
- Copays and deductibles apply in the same way as regular clinic visits.
16 Participating Schools
Telehealth in a School Serving Children with Severe and Multiple Disabilities

A Case Study

Carrie L. Cormack, DNP, APRN, CPNP

Medical University of South Carolina
College of Nursing
Children with severe and multiple disabilities

→ Prevalence
→ Definition
→ Additional co-morbidities
→ Dependent for ADLs, Mobility and Communication

Individuals with Disabilities Education Act (IDEA)
Current models do not manage well the health and education needs of children with severe and multiple disabilities (Cohen et al, 2011). Guidance of health professionals is essential.

Comprehensive health services + Education = Optimal Collaborative Care
Local Significance

Pattison’s Academy

› Pattison’s Academy for Comprehensive Education (PACE)
› Mission and Values
  › Integrating education and rehabilitation
  › Improving Quality of Life
  › Offering collaborative, comprehensive care
  › Improving experience of delivery of care
  › Barriers exist to provide the necessary collaboration
Pattison’s Academy for Comprehensive Education (PACE)

Children attending PACE (32)

- 4-19 years of age
- Medically fragile
- Level IV, V on GMFCS, MAC, CFCS
- Multiple specialty providers
Literature Review

*Family Centered Approach* ideal model of healthcare delivery for children with special needs and their families

Holistic, comprehensive, collaborative care in the context of coordinated services should be intention of healthcare providers

Parents and staff indicate the need to improve collaboration and comprehensive care

(Bellin, Osteen, Heffernan, Levy, & Snyder-Vogel, 2011; Lawson, Bloom, Sadof, Stille, & Perrin, 2011; Palfrey et al., 2010; Wei & Yu, 2012).
To *improve* the parental and staff experience with healthcare delivery and collaborative health care offered at PACE by implementing *school based telehealth services*. 
Theoretical Framework

Care Coordination Model

PATIENT-CENTERED MEDICAL HOME
- Accountability
- Patient Support

- Relationships & Agreements
- Connectivity

Community Agencies
Hospitals & ERs
Medical Specialists

- Involved providers receive the information they need when they need it
- Practice knows the status of all referrals/ transitions involving its panel
- Patients report receiving help in coordinating care

High-quality referrals & transitions for providers & patients

The MacColl Institute for Healthcare Innovation, Group Health Cooperative © 2010
Instruments

• To assess *Experience of Healthcare Delivery*

  • *The Measure of Processes of Care* (MPOC-20)  
    (King, Rosenbaum, & King, 1995)

  • *Measure of Processes of Care for service providers* (MPOC-SP)  
    (Woodside, Rosenbaum, King, & King, 1998)

• Domains **including coordinated and comprehensive care for child and family**

• Distributed to all parents and staff at PACE

  • pre and post intervention
MUSC Center for Telehealth offered school based telehealth services to children attending PACE

August – October 2014

- Referrals for Neurology concerns (seizures, medication adjustments, behavior changes)
- Referrals for Nutrition concerns (feeding schedules, intolerance concerns)
- 5 calls total via Vidyo (11-29 minutes)

Participants for calls included: Registered Nurse, Pediatric Nurse Practitioner, Pediatric Neurology Nurse Practitioner, Registered Dietician, Physical Therapist, Special Education Teacher, Parent, Student
Primary Outcome

Primary

• Improve the experience, satisfaction with and perceptions of care that the parents of children with disabilities and the staff working with their children have been receiving from PACE.

MPOC scores

• Overall scores evaluating the experience with healthcare delivery increased after the telehealth intervention from both parents and staff.
Secondary Outcomes

• Increased comfort and medical knowledge of staff
• Increased staff/parent/provider collaboration
• Shorter referral times for appointments
• Decreased student absences from school
• Decreased parent time away from work
Where are we now?

Telehealth at PACE continues….

- Since August 17th, 2015
  - 7 successful Telehealth calls
- RN, Staff and families committed to this model
- Future projects in the works
Step by Step Guide

1. • Asses Regional Needs
2. • Build the Team
3. • Secure Community Support
4. • Evaluate Resources
5. • Configure Logistics
6. • Train Staff
7. • Promote Program to Parents
8. • Launch Program
Assess Regional Needs

- Health-care provider data
- Surveys
- Focus groups
Build the Team

- **School District Champion**
  - School nurse leadership, school nurse

- **School District Leadership**
  - Superintendent
  - School board
  - Principals

- **Other School Resources**
  - IT support
  - Parent advocate
  - Available resources
    - Mental health
Secure Community Support

Assess provider perception of program
- Visit local family practice and pediatric providers
- Reinforce goals of program
- Invite them to participate!
Evaluate Resources

- **Room assessment**
  - Data port

- **Bandwidth**
  - Choice of video client (Jabber, Vidyo, etc)
  - Time of day
  - Conduct needs assessment

- **Availability of school nurse**
  - Include a telepresenter
Configure Logistics

- Legal
  - Contractual
  - Consent forms
- Funding source
- Select equipment for purchase
Train Staff

- Develop manual
  - Instructions
  - Policies and Procedures
- Hands-on training
- Weekly check-ins
- IT staff
Promote Program to Parents

- Consent form packets
- Community events
  - Back to school nights/registration
  - PTA meetings
  - Sports events
Launch School-Based Telehealth Program

- Ongoing technical support and training
- Convenient clinic time
- Relationship building
- Ongoing program promotion
- Patience and flexibility
Patient Testimonials
Questions
Program Contact Info

James T. McElligott, MD MSCR
Medical Director for Telehealth
Phone: 843.876.0218
e-mail: mcellig@musc.edu

Elana N. Wells, MPH, CHES
Program Manager, School-Based Telehealth
Phone: 843.876.0240
e-mail: navon@musc.edu

Kelli Garber MSN, PPCNP-BC, APRN
Nurse Practitioner, School-Based Telehealth
Phone: 843.792.8709
e-mail: garberk@musc.edu

Carrie Cormack, DNP, MSN, RN, CPNP
Instructor, College of Nursing
e-mail: cormackc@musc.edu


