Changing Strategies for Diabetes Education: Improving Rural Community Access with Telehealth

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Objectives

• Discuss research and other evidence on the use telehealth for patient education
• Discuss current state and national legislation and regulation for telehealth services
• Identify barriers to and methods to overcome them in the use of telehealth for patient diabetes education
• Discuss billing and coding strategy for telehealth reimbursement

Disclosures

I have NO financial disclosure or conflicts of interest with the material presented today.

Background

• Glycemic and lifestyle changes
• Hemoglobin A1C < 7%
• Lack of access
• Cost prohibitive
• Not sustainable

National Financial Implications

• Potential reductions
  • $4 billion in hospitalizations
  • $735 million in emergency room (ER) visits
  • $8 billion in potential ER visits and hospitalizations annually
  • Total care cost reduction by $2,207 per patient/year

“Challenges in Diabetes,” 2017
Juarez, et al., 2013

Diagnosed Diabetes by State
Diabetes Prevalence by Year
Telehealth Definition

“the use of electronic information and telecommunication technologies to support and promote long-distance clinical health care, patient and professional health-related education, public health and health administration. Technologies include video conferencing, the internet, store-and-forward imaging, streaming media, and terrestrial and wireless communication”

(U.S. Department of Health and Human Services Health Resources and Services Administration [HRSA], 2019, pg. 1 para.3).

Telehealth Services

- Disease education (Vismara et al., 2013; Wainer & Ingersoll, 2015; Gerber et al., 2013)
- Medication administration and adherence (Saberi et al., 2013; Gerber et al., 2013)
- Patient motivation and satisfaction (Saberi et al., 2013; Vismara et al., 2013)
- Reduced costs (Saberi et al., 2013)
- Improved access and outcomes (Saberi et al., 2013)

TELEHEALTH EDUCATION

- Parental educational for autistic children (Vismara et al., 2013; Wainer & Ingersoll, 2015)
- Medication education to HIV patients (Saberi et al., 2013)
- Patient weight loss education (Saberi et al., 2013)
- Patient knowledge and adherence in heart failure (Graves, Ford, & Mooney, 2013)

ADDITIONAL CONSIDERATIONS

- Improved patient care satisfaction (Saberi et al., 2013; Vismara et al., 2013)
- Increased patient motivation (Mander, Fuldner, Morgan, & Lippert, 2015)
- Reduced health care costs
- Improved health outcomes (Graves, Ford, & Mooney, 2013)
CONCEPTUAL MODEL

Telehealth in Chronic Disease (TECH)
- Engagement
- Coordination
- Partnership
- System interaction

Sample Pilot Program
- Online instructional DSME
- Instructional videos
- Teleconference
- Outcome measures (quarterly)
- Clinical outcomes
- Participation
- Program cost

Demographics

<table>
<thead>
<tr>
<th>Group</th>
<th>Number of Participants</th>
<th>Age (M) (Range)</th>
<th>Gender</th>
<th>Ethnicity</th>
<th>Baseline HbA1C% (M) (Range)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group class (Pw)</td>
<td>24</td>
<td>51 (33 – 71)</td>
<td>13 (56) F</td>
<td>15 (63) H</td>
<td>8.4 (5.4 – 13.3)</td>
</tr>
<tr>
<td>Group class/Telehealth</td>
<td>11</td>
<td>51 (23 – 72)</td>
<td>7 (64) M</td>
<td>7 (64) NH</td>
<td>8.4 (5 – 14.1)</td>
</tr>
<tr>
<td>Telehealth – Online only</td>
<td>20</td>
<td>43 (20 – 67)</td>
<td>15 (65) F</td>
<td>15 (75) H</td>
<td>9.5 (6.3 – 14.0)</td>
</tr>
<tr>
<td>Telehealth – Online/teleconference</td>
<td>35</td>
<td>43 (29 – 70)</td>
<td>23 (66) F</td>
<td>26 (74) H</td>
<td>9.9 (5.8 – 15.5)</td>
</tr>
<tr>
<td>Telehealth – Total (Post)</td>
<td>66</td>
<td>49 (20 – 72)</td>
<td>43 (65) F</td>
<td>48 (73) H</td>
<td>9.6 (5.4 – 15.5)</td>
</tr>
</tbody>
</table>

Non-parametric Analysis

No difference at baseline  
(CI 95, p=0.063)
Statistically significant at 3 months  
(n=40, p<0.001)
Statistically significant at 6 months  
(n=22, p<0.001)
Mean Improvement 1.7%

Evaluation
- Did the intervention improve HgA1C levels at initial 3 month follow up?  
  Yes
- Was the change sustainable?  
  Inconclusive
- Did the intervention improve patient access?  
  Yes

Limitations
- Sample size
- Duration
Discussion

• Individualized telehealth education
• Unique one on one interaction
• Access vulnerable populations
• Decrease medication need
• Reduce healthcare cost

Texas Telehealth Regulation

• Coverage Parity
• Reimbursement Parity
• Standard of care
• Patient consent
• Site regulation

Barriers to Practice

• Reimbursement and coding
• Certification requirements
• Staff training
• Time constraints

Methods for Implementation

• Electronic health record/patient portal
• Learning management systems
• Remote patient monitoring
• Secure/encrypted phone system
• Store and forward educational materials

Billing

• Originating site
• Distant site
• Performing provider
• CPT codes
• Modifiers

Coding

• 98960 -98962 – Patient education and training (each 30 min)
• 99211-99215 – Office or outpatient visit established patient
• G0108/ G0109 – Individual and group DSME
• G0459 – Pharmacologic management
• G0270 (97802-04) – Individual and group medical nutritional therapy
Coding

- GQ – Via asynchronous telecommunications systems
- GT – Via interactive audio and video telecommunications systems
- 95 – Synchronous telemedicine service rendered via a real-time interactive audio and video telecommunications system
- POS – Place of service codes

Conclusion

Questions or Comments?

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