TELEREHABILITATION:
CURRENT SERVICES AND THE BENEFITS
OF TELEHEALTH IN PHYSICAL THERAPY

Christina Crawford, PT, DPT, PhD
Physical Therapy Telehealth Coordinator
Board-Certified Clinical Specialist in Geriatric Physical Therapy
Advance Credentialed Exercise Expert for Aging Adults
Disclaimer

- What is presented is for information purposes and should not be regarded as legal advice.
- My comments are based on my own clinical experience as a physical therapist and do not represent the policy or views of the Department of Veterans Affairs.
Rural Veterans Telerehabilitation Initiative

- Established 2009
- Funding from the VA Office of Rural Health.


**FIGURE 3 Number of Unique Patients by Rurality**

[Graph showing the number of unique patients by rurality from 2012 to 2017.]
Connecting Veterans across Metropolitan Phoenix and rural Community-Based Outpatient Clinics (CBOC):
- Southeast CBOC
- Northeast CBOC
- Show Low CBOC
- Southwest CBOC
- Thunderbird Clinic
- Northwest CBOC
- Globe CBOC
- Midtown CBOC
- Payson CBOC

Telehealth Clinical Technicians (TCT)
- 1-2 TCT in each CBOC to assist with remote care
Connecting with CBOCs

- Schools – 1x education class
- Group exercise classes
- One-on-one appointment
  - Durable medical equipment assessment
  - Assistive device assessment
  - Pain management and modulation treatment options
  - Follow-up from prior appointment
  - Guide primary care provider for specialized referral
Staying Active & Staying Connected

Integrity Commitment Advocacy Respect Excellence

https://www.youtube.com/watch?v=I7z9FBDALvk&feature=youtu.be
Benefits of Clinic-to-Clinic Connection

**Integrity Commitment Advocacy Respect Excellence**

- **Provider**
  - Can more readily include family/caregivers in teaching/education
  - Attracts new patients
  - Reduces No-Show
  - Ease of set-up/clean-up in-between
  - Optimizes space of a smaller clinics

- **Veteran**
  - Convenient - Frequently occurs after working with primary care provider
  - Reduce resource burden (e.g. time - long commute)
  - Improved remote access to a specialist
  - Provides timely follow-up to facilitate carry-over
  - Co-Pay exempt
Connecting with the Veteran at Home

- Specialty PT Providers available:
  - Chronic Pain, Orthopedic, Pelvic Floor, Amputee, and Geriatrics

- PT Telehealth services:
  - AD training or retraining
  - Pain education or modality training
  - Home Exercise program review or progression
  - Fall recovery in home and education
  - Post discharge follow-up (example: TKA)
  - Patient and family education
  - Consult with home primary care team
Video-to-Home Telehealth Services

Integrity Commitment Advocacy Respect Excellence

“Anywhere to Anywhere”
Benefits of Video-to-Home Telehealth

- Improved access and reduced no shows
- Improve continuity of care
- Convenient
- Home Environment
  - Able to assess function and mobility in patient’s home
  - Inclusion of family and caregivers
- Optimize use of resources
  - Co-Pay exempt
  - No transportation needed
  - Time
## Influencers of Telehealth Utilization

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Facilitators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slow Internet speed</td>
<td>Cost savings</td>
</tr>
<tr>
<td>Poor audio/video quality</td>
<td>Reduced wait time</td>
</tr>
<tr>
<td>Internet access and wireless coverage</td>
<td>No travel time</td>
</tr>
<tr>
<td>Low provider communication skills</td>
<td>Easy to use</td>
</tr>
<tr>
<td>Resistance to use or perceptions</td>
<td>Motivation and engagement</td>
</tr>
<tr>
<td>Difficulty with camera position</td>
<td>Family involvement</td>
</tr>
<tr>
<td>Security and privacy concerns</td>
<td>Convenience</td>
</tr>
<tr>
<td>Reimbursement issues</td>
<td>Privacy</td>
</tr>
<tr>
<td>Policy and laws</td>
<td>Better management</td>
</tr>
</tbody>
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Almathami, Win, & Vlahu-Gjorgievska, 2020
Musculoskeletal Telerehabilitation

2017 Systematic Review & Meta-Analysis - Telerehabilitation was found to be:
- Effective to improve physical function and pain
- More favorable than in-person care alone
- Equivalent to in-person care
  - Cottrell, Galea, O’Leary, Hill, & Russell, 2017

2016 Systematic Review - Telehealth PT assessment - “feasible with overall good concurrent validity and excellent reliability”
- Assessment of pain, swelling, range of motion, muscle strength, balance, gait and functional assessment.
  - Mani, Sharma, Omar, Paungmali, & Joseph, 2016
Fall Prevention Telehealth Program

Participants with 1 fall
- Telehealth group 20.6%
- Conventional 39.4%

Participants with 2 or more falls
- Telehealth group 8%
- Conventional group 17%

Bernocchi et al., 2019
Total Joint Arthroplasty

- 2020 Systematic Review – Telerehabilitation for post-op lower limb total joint
  - Improved physical function, similar to that of in-person outpatient physical therapy, without an increase in adverse events or resource utilization.  
    Jansson, Rantala, Miettunen, Puhto, & Pikkarainen, 2020
- Is there acceptance of telehealth after surgery?
  - 44% preferred a virtual visit
  - Satisfaction associated with feeling heard
  - Helpful for self management
  - Clear communication pathway
    - Parkes, Palmer, Wingham, & Williams, 2019

April 26, 2019

Assessment of Outcomes of Inpatient or Clinic-Based vs Home-Based Rehabilitation After Total Knee Arthroplasty: A Systematic Review and Meta-analysis

Mark A. Buhagiar, PhD, MHM, BAppSc; Justine M. Naylor, PhD, BAppSc; Ian A. Harris, MBBS, MMed, PhD, FRACS, FAHMS; et al.
Potential Telehealth Impact on Post-Op Care

- Connecting Phoenix VA Veterans that are post-operative total knee arthroplasty
  - Start conversation at pre-op
  - Facilitate access & connection
    - See virtual provider within 1 week from discharge
  - Significantly more patients started out-patient services in the recommended time.
“Learn from yesterday, live for today, hope for tomorrow. The important thing is not to stop questioning.”

~Albert Einstein~

Thank you!