

Amptify

In coordination with ADA

Presents

Innovative AR Strategies to Differentiate Your Practice



You will be able to:

- Describe the why for creating a digital- first aural rehabilitation treatment plan for patients
- Identify candidacy criteria, using common patient profiles
- List the benefits of using a digital aural rehabilitation program to differentiate audiology practices
- Identify practice management strategies to implement a digital AR program

Why, Who, When, and How to implement

Amptify

Hearing loss challenges don't stop at the ears.



32%
higher risk of **hospitalization**
(Genther et. al., 2013)



3x
higher risk of **falls**
(Lin & Ferrucci 2012)



46%
higher healthcare costs for those
with untreated hearing loss
(Reed NS, Altan A, Deal JA, et al.)



5x
greater risk of **dementia**
(Lin et al., 2011)



3x
higher risk of **cardiovascular disease**
(Gates et. al., 1993)



30-40%
accelerated rate of **cognitive decline**
(Lin et al., 2013)



2.5x
higher risk of **dying**
(Karpa et al., 2010)



1.5x
higher risk of **visual impairment**
(Chia et. al., 2006)



Increased **social withdrawal, isolation**
(Mick et al., 2014; Weinstein & Ventry, 1982)



Higher risk for **depressive symptoms**
(Cacciatore et al., 1999; Huang et al., 2010)



**Anger and frustration...
fatigue** due to listening effort...
(Mick et al., 2014; Weinstein & Ventry, 1982)



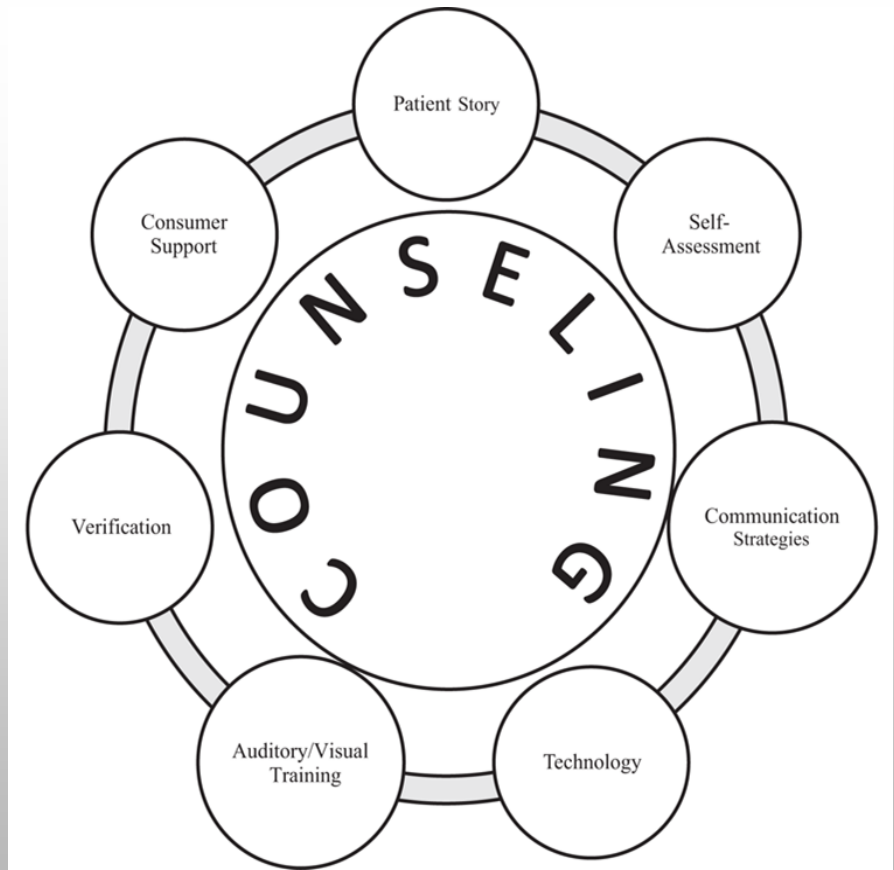
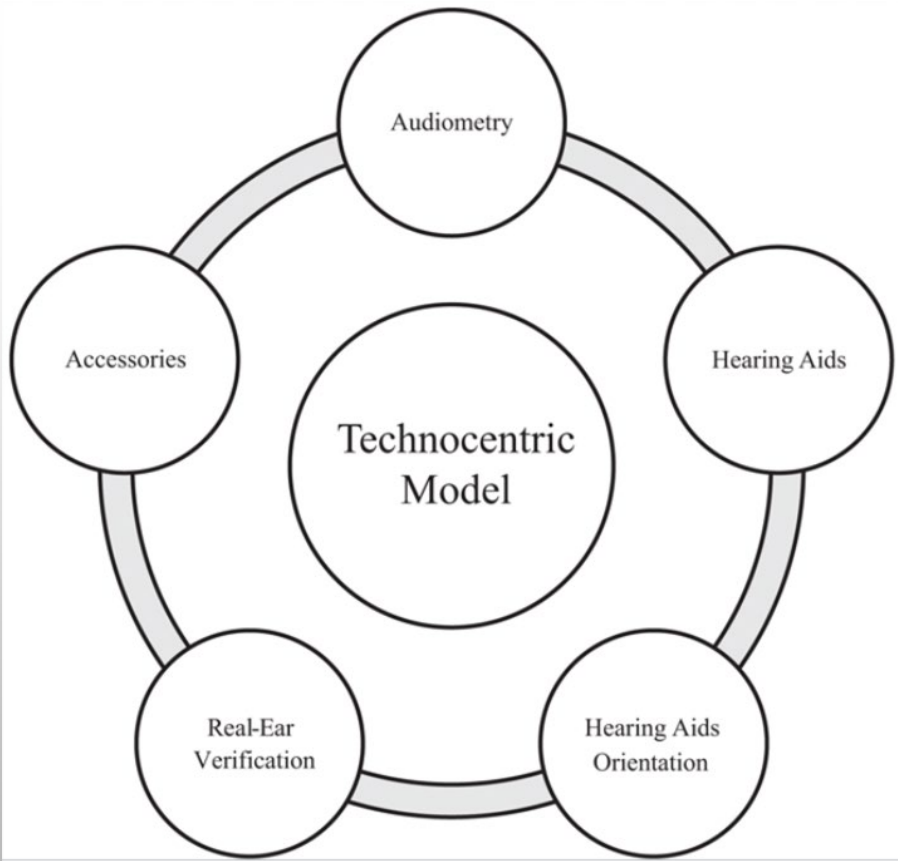
Overall, **lower quality of life**
(Ciorba et al., 2012; Dalton et al., 2003)

What is Aural (Audiologic) Rehabilitation?

International
Classification of
Functioning (ICF)

Person/Family
Centered Care (FCC)





Montano, J. J. (2011). Adapted from "Building relationships: An important component to the aural rehabilitation process." *ENT and Audiology*, 20(4), 91-92.

The three pillars of hearing healthcare:



DIAGNOSIS

The patient:

- Suspects hearing loss
- Undergoes testing
- Receives formal diagnosis



TREATMENT

The patient:

- Receives appropriate amplification
- Receives appropriate hearing assistive technology.



REHABILITATION

The patient:

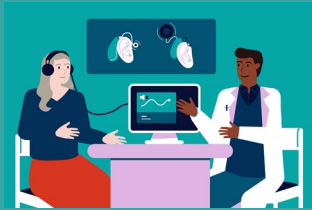
- Learns to manage the listening technology
- Learns to navigate remaining listening challenges

Amptify is for Clinical Care

Improve patient satisfaction with less in-office time spent

Save on clinic costs while giving patients on-going personalized support and access to an evidence-based aural rehabilitation program.
(Model based on Boothroyd, 2007)

What the clinician does



SENSORY MANAGEMENT

Optimize auditory function through enhanced hearing technology to provide improved audibility while preserving comfort.

INSTRUCTION

Teach patients proper and effective use of hearing technology to maximize its use and effectiveness.

What Amptify DTx does



COUNSELING & EDUCATION

Amptify works to increase satisfaction with hearing technology and empowers patients to manage listening challenges.



AUDITORY TRAINING

Auditory and cognitive training games develop speech perception skills, increase listening confidence, and enhance conversational fluency.

The Therapeutic Experience

INTERACTIVE CURRICULUM



Twelve weeks of motivation, quizzes, strategies, real-life practice, and hearing loss education crafted to improve participants lives.

PEER SUPPORT COMMUNITY



A managed peer-to-peer environment for participants to interact, receive support, and offer guidance.

HEARING HEALTH COACH



Guidance from hearing healthcare professionals trained to support and engage participants.

AUDITORY BRAIN TRAINING GAMES

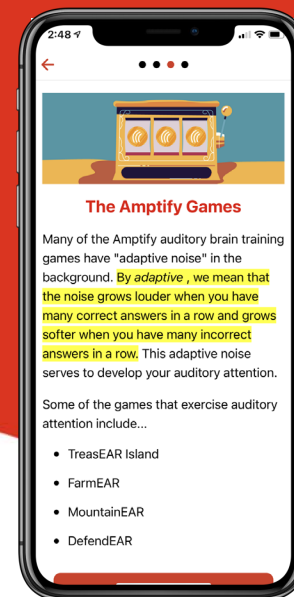
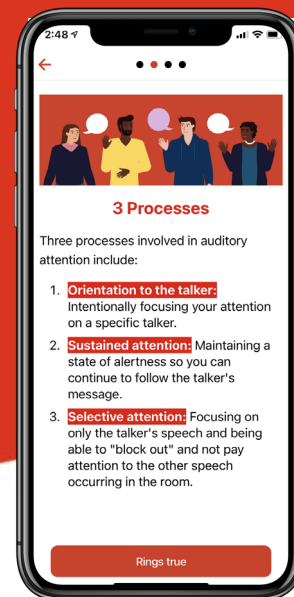
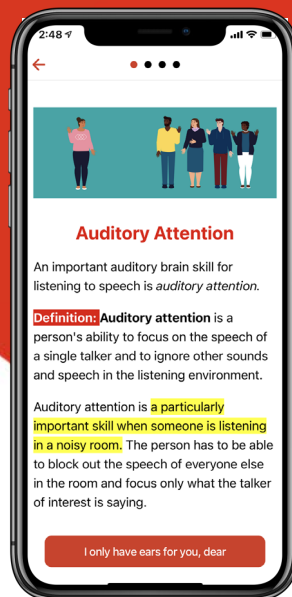
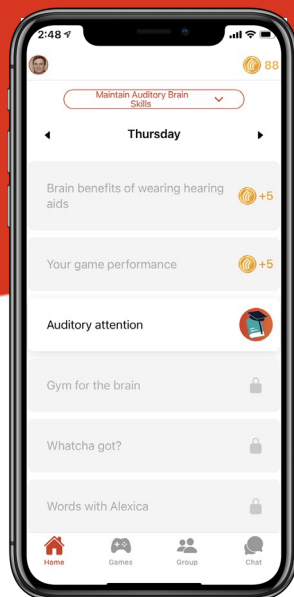
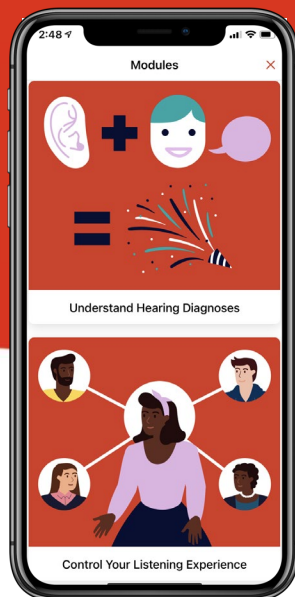


Video games designed to teach strong listening and cognitive skills through fun, interactive auditory training modules.

Interactive Curriculum

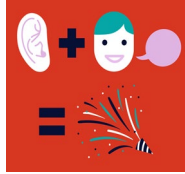
Hearing loss education crafted to improve life

Interactive and educational weekly modules to maximize listening potential, ease device acclimation, improve social interactions, and address hearing challenges.

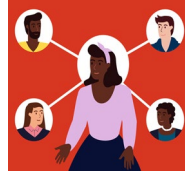




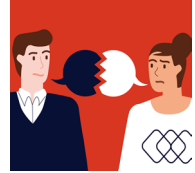
Discover Effective Listening



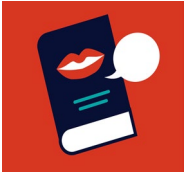
Understanding Hearing Diagnoses



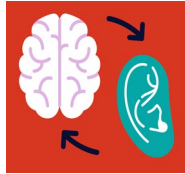
Control Your Listening Experience



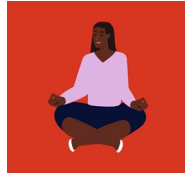
Minimize Communication Breakdowns



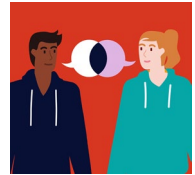
Plan For Reading Lips



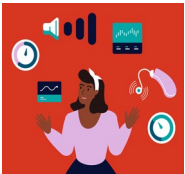
Maintain Your Auditory Brain Skills



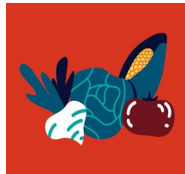
Calm Mind, Enhanced Performance



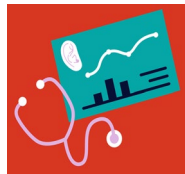
Ensure Successful Conversations



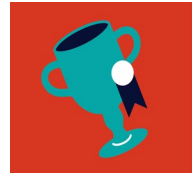
Explore Technology



Nutrition to Support Hearing Health



Medical Concerns & More on Prevention



The Journey Continues

Hearing Health Coach

Personalized support for participants

Participants receive one-on-one guidance from coaches who track weekly training progress, provide tailored assistance and support members on their journey to better hearing and communication.

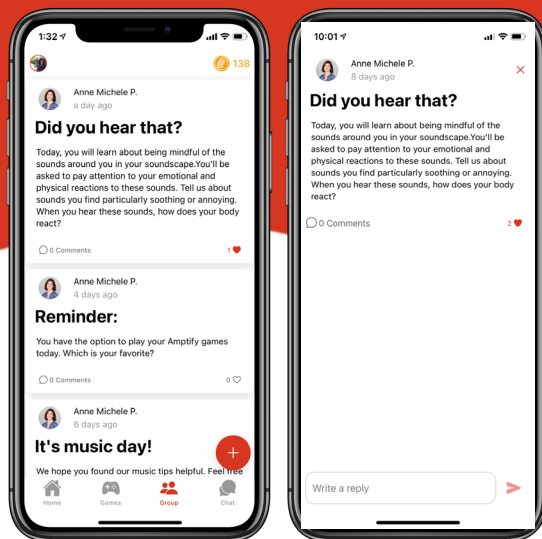


Peer Support Community

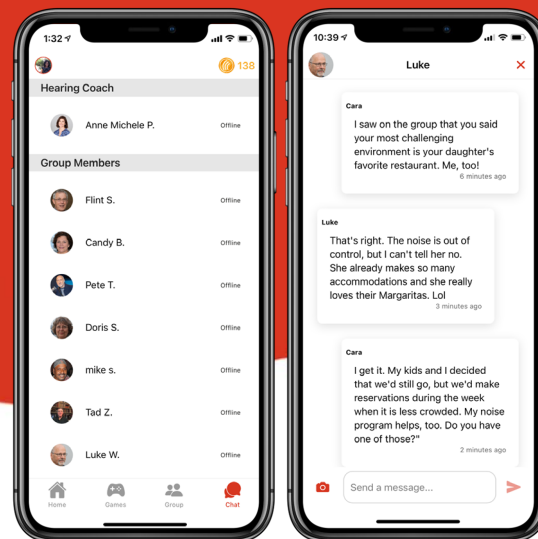
Shared experiences build community

Participants share strategies for handling challenging listening situations, post questions, discuss frustrations, and celebrate progress.

Managed Group Forum



Direct Messaging



Auditory Brain Training Video Games






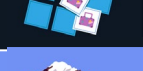
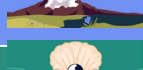



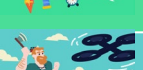


Clinically validated games that teach and exercise listening skills

Listening therapy and auditory cognitive skills training are delivered through engaging video games that are fun and easy to play.



Amptify Games

Auditory Skills Trained

		Auditory Memory Remember spoken words for short periods.	Auditory Sequencing Remember the order of spoken words for a short amount of time.	Discourse Comprehension Manipulate and interpret long sequences of speech in memory.	Speech Perception Identify and discriminate words.	Phoneme Discrimination Distinguish speech sounds from each other.	Word Identification Discriminate words that sound alike.	Bound Morpheme Identification Discriminate word endings that change meaning.	Noise Tolerance Identify and discriminate words in background noise.	Processing Speed Reaction to discriminate words and phrases.
DefendEAR					✓	✓	✓		✓	
EARnaut		✓				✓	✓		✓	
EARplane					✓	✓	✓			✓
FarmEAR					✓	✓	✓		✓	
HoopstEAR					✓			✓		✓
MatchEAR		✓			✓	✓	✓			
MountainEAR						✓	✓		✓	✓
PEARl Crunch					✓			✓		
PokEAR		✓			✓	✓	✓			
ShakespEAR		✓	✓	✓						
Simon's EAR		✓	✓							
Time TravelEAR					✓	✓	✓		✓	
TreasEAR Island			✓		✓	✓	✓		✓	

Backed by clinical research and peer-reviewed publishing.

Amptify

- Enhances speech discrimination (1,2)
- Leads to reduced perceptual effort during listening. (3)
- Regular contact with hearing healthcare professionals enhances the hearing wellness experience. (4)
- Increases listening confidence. (4)
- Leads to improved communication and interactions between couples. (5)
- 96% of new hearing instrument users (N=28) responded positively to the Amptify experience. (7)



Foundational Evidence

Citations with Research Support.pdf



Amptify

CITATIONS AND RESEARCH

Foundations of Aural Rehabilitation (AR)

Tye-Murray N. (2021). [A digital therapeutic and hearing health coach for enhancing first-time hearing aid experiences.](#) *Hearing Review*, 28, 25-26.

This is an overview of Amptify DTX, detailing its evolution from cLEAR auditory brain training games to a comprehensive hearing health digital therapeutic.

HCAA position statement on AR, 2018

https://www.hearingloss.org/wp-content/uploads/PositionPaper_AuralRehabilitation.pdf

A position statement supporting the use of an "aural rehabilitation model of hearing healthcare", released by the leading consumer based association of people with hearing loss.

Lin FR, Yaffe K, Xia J, Xue QL, Harris TB, Purchase-Helzner E, Satterfield S, Ayonayon HN, Ferrucci L, Simonsick EM; Health ABC Study Group. (2013) [Hearing loss and cognitive decline in older adults.](#) *JAMA Intern Med.* 173(4):293-9.

Sweetow, Robert W.; Henderson Sabes, Jennifer (2010) [Auditory Training and Challenges Associated with Participation and Compliance.](#) *J Am Acad Audiol* 21(9), 586-593.

An article co-written by the creator of LACE, detailing attributes of a successful "computer aided" AR program and the barriers to achieving patient compliance. Helpful in understanding the path from the field's pioneers to Amptify Dtx.

Boothroyd A. (2007) [Adult aural rehabilitation: what is it and does it work?](#) *Trends Amplif.* 11(2):63-71.

This is a seminal outline of rehabilitative audiological care: sensory management, instruction, perceptual training, and counseling. There is a discussion of goals (to restore function, activity, participation, and quality of life) with emphasis on the evidence that supports this practice.

Ross, M. (1997). [A Retrospective Look at the Future of Aural Rehabilitation.](#) *Journal of the Academy of Rehabilitative Audiology*, 30, 11-28.

A classic citation that reviews the history of AR and its evolution and argues the benefits of the group hearing aid orientation program as a vehicle to provide patient efficient rehabilitative content.

The Benefits of Group Aural Rehabilitation

Oestreich, K. (2018). [Adult Group Aural Rehabilitation: Implementing a Successful Program.](#) *Audiology Today*. Vol 30 No 6.

A short read for AAA members that highlights supporting research for group aural rehabilitation as well as components of a successful program. It notably discusses the role of the group facilitator, which informs the reader's understanding of Amptify's coaching philosophy.

Citations with a left border denote that an Amptify team member was involved with the research

Timmer, Barbra H. B. et. al. (2023) Social-emotional well-being and adult hearing loss: clinical recommendations, International Journal of Audiology, DOI: 10.1080/14992027.2023.2190864 *A five step plan to address social-emotional well being in adults with hearing loss.*

Tye-Murray N, Spehar B, Mauze E, Cardinal C.(2022) Hearing Health Care Digital Therapeutics: Patient Satisfaction Evidence. Am J Audiol. 21;31(3S):905-913. *Ninety six percent of members who used the Amptify DTx in this study reported positive benefits and about half reported that it assisted them in acclimating to their new hearing aids.*

Bernstein, Claire Marcus PhD et. al. (2021). Maximizing Cochlear Implant Outcomes with Short-Term Aural Rehabilitation. J Am Acad Audiol, 32 (3), p 144–156. *Postlingually deafened CI recipients showed statistically significant improvement compared to control for speech recognition, psychosocial function, and communication goals following a shortterm AR program of auditory training and psychosocial counseling.*

Preminger J, Yoo J. (2010) Do group audiologic rehabilitation activities influence psychosocial outcomes? Amer J Audiol 19(2): 109–125. *A group aural rehabilitation program consisting of a combination of communication strategies training,/informational counseling and psychosocial activities, demonstrated better outcomes than a program without psychosocial activities. This study supports a diverse aural rehabilitation curriculum with psychosocial components.*

Boothroyd A. (2007) Adult aural rehabilitation: what is it and does it work? Trends Amplif. 11(2):63-71. *This is a seminal outline of rehabilitative audiological care: sensory management, instruction, perceptual training, and counseling. There is a discussion of goals (to restore function, activity,participation, and quality of life) with emphasis on the evidence that supports this practice.*

Hickson, L., Worrall, L., and Scarinci, N. (2007). A randomized controlled trial evaluating the active communication education program for older people with hearing impairment. Ear and Hearing, 28, 212-230. *Similar to Amptify, ACE includes classic rehabilitative content and an emphasis on peer sharing.*

Hawkins, D. (2005). Effectiveness of counseling-based adult group aural rehabilitation programs: A systematic review of the evidence. J Am Acad Audiol, 16(7), 485-493. *Reviewed evidence suggests that adult AR programs that emphasize counseling and communication strategies provide participants in the short-term with reduced self-perception of hearing loss and better use of communication strategies.*

Clinical Application

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Person Centered Care

Amptify

Who is a candidate for Amptify?

The majority of patients, from the “not ready for hearing aids” population, those with speech in noise issues, to hearing aids users and cochlear implant recipients.

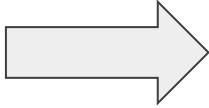
A couple of exceptions ... Severe to profound SNHL, especially those whose primary communication mode is sign.
Those without accessibility to technology and/or cognitively impaired.

Who is a candidate by tool?

Tools

1. AR interactive educational curriculum
2. Community
3. Coach
4. Auditory Training

Assessment



Treatment Plan & Recommendations

Candidacy

Digital AR Offering

New HAs (*adaptation*)
engagement



HA tips, training, coach support, group

Subclinical HL (*sp. in noise*)



Coach validation, training and comm. strategies

Mild HL (*refuses HAs*)



Education, vicarious experience, training epiphany

Existing user (*optimization*)



Training, group camaraderie, advanced education

Longtime user (*challenges*)



Training, coach guidance, advanced education

New or existing CI
education



Auditory training, peer support, CI centric


Cochlear Implant Track

- The **curriculum** is tailored to the CI recipient's perspective
- The introduction of the **games** and their settings are tailored to CI acclimatization
- They are placed with a **coach** who is specifically trained
- The **group** is exclusively CI users, with posts that are tailored to their experiences.



When?

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Don't save the best for last...

- Case History: 
- Background noise
 - Memory issues
 - Social isolation or feeling alone
 - Intake Questionnaire; HHIE

- Assessment: 
- Cognitive Screening
 - Speech in Noise Testing

- Hearing Aid Evaluation: 
- Post Fitting Adjustments: 
- Treatment Plan includes
 - Self-reported issues of difficulties in background noise

- Test Not Treated: 
- Not ready for amplification

How??

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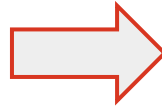
Value to the Clinician

Engage the Team

Amptify

Barriers

Time constraints during appointments
Forgetfulness
Limiting belief about the program
Candidacy bias
Assumptions about low adherence



Potential

Increase treatment acceptance
Reduce device returns
Build sense of community
Demonstrate care for patients
Build value beyond the device
Recognize that some training is better than no training



Value to the Clinic

- Differentiate practice
- Increase revenue stream
- Provide best practice by outsourcing AR
- Increased patient satisfaction
- Save time on routine care questions
- Use portal, similar to data logging, to customize follow-up



Amptify

An extension of your clinic, providing best practice solutions to your patients

The 'How': Marketing

Key Concepts:

- Individualized, Consistent Treatment
- Active Aging, Aging Well
- Physiotherapy for the Brain (exercise)
- Community and Support
- We Care

To Charge or Not to Charge??

Self-pay vs. clinic-sponsored

Unbundled-options for adding it:

- Treatment plan - regardless of technology
- Service plan - new technology
- Returning patients (experienced users) who are still struggling

Take away: Members with buy-in are more likely to adhere to the program. When patients pay, they are more likely to participate.

Forward Thinking...

Treatment Focused Care

Our Evolution



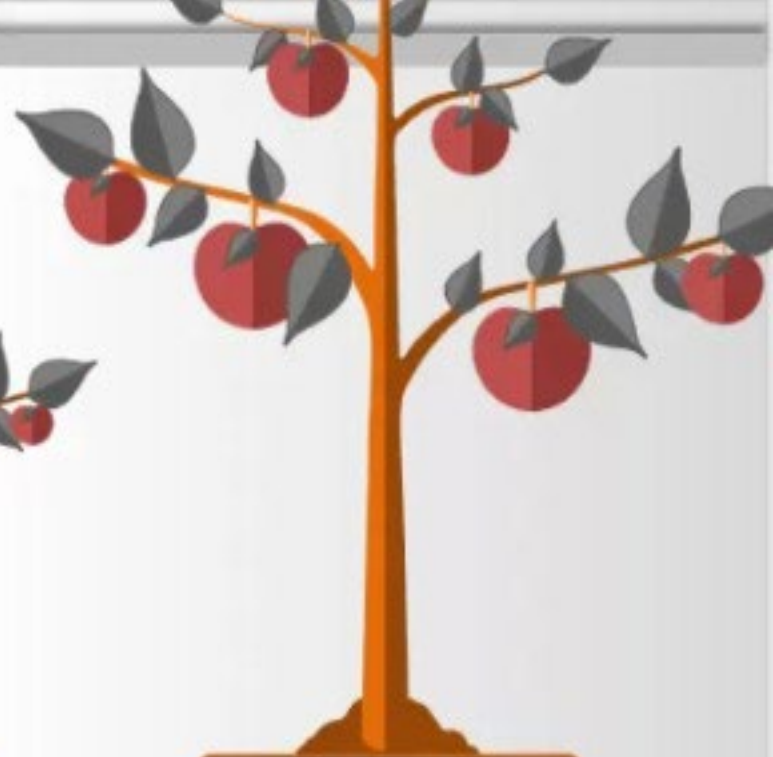
Past Growth

cLEAR



Present Growth

Amptify DTx
(generic and CI)



Future Growth

**Cabinet of
Solutions**

Our mission is to inspire and enable those with hearing loss to live a happier and more confident life.

...to Amptify life.

Questions??

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