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Implementing Nonpharmacologic Pain Care in Underserved, Rural and Minoritized Communities Using Telehealth: Lessons Learned from Pragmatic Trials Research




Julie Fritz, PT, PhD
Distinguished Professor,
Department of Physical
Therapy & Athletic Training
Associate Dean for
Research, College of
Health
University of Utah



Adam Goode, PT, DPT, PhD
Associate Professor and Vice
Chair of Clinical Research and
Epidemiology, Department of
Orthopaedic Surgery
Duke University





Isaac Ford, DPT, OCS
Lead Physical Therapist,
BeatPain Utah



Laura Vinci de Vanegas, DPT, OCS
Physical Therapist, BeatPain
Utah; University of Utah Health

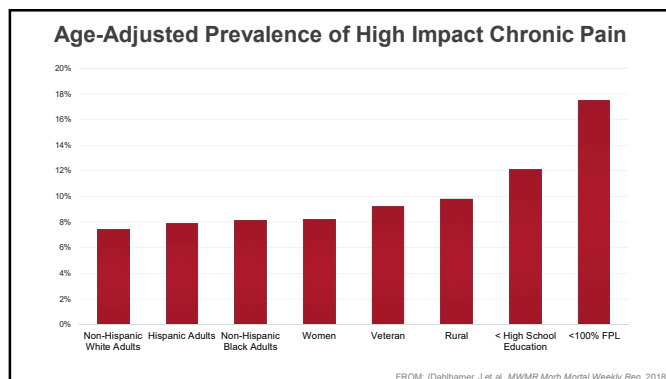
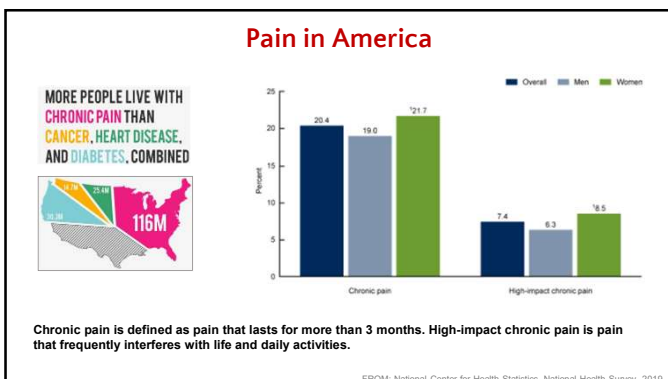
Disclosures

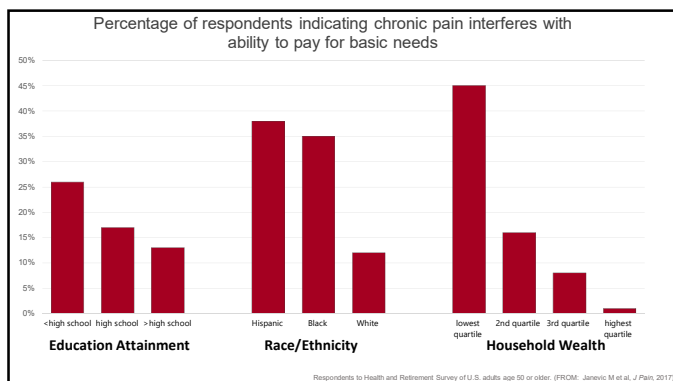
- BeatPain Utah is supported through NIH HEAL Initiative (UG3/UH3NR019943) NIH/NINR. Additional support from the PRISM Resource Coordinating Center and NIH Pragmatic Trials Collaboratory at Duke University (U24AT010961).
- AIM-BACK is supported through the NIH-DoD-VA Pain Management Collaboratory (UG3/UH3AT009790) NIH/NCCIH. Additional support from the PMC Coordinating Center at Yale University (U24AT009769)

AGENDA

- Describe disparities in chronic pain prevalence and management in rural, minoritized and under-served communities.
- Discuss telehealth interventions targeting physical activity with attention to adaptations and strategies to enhance patient engagement.
- Present strategies to integrate a biopsychosocial approach into telehealth interventions.
- Discuss considerations for implementing telehealth interventions with persons from Hispanic communities.

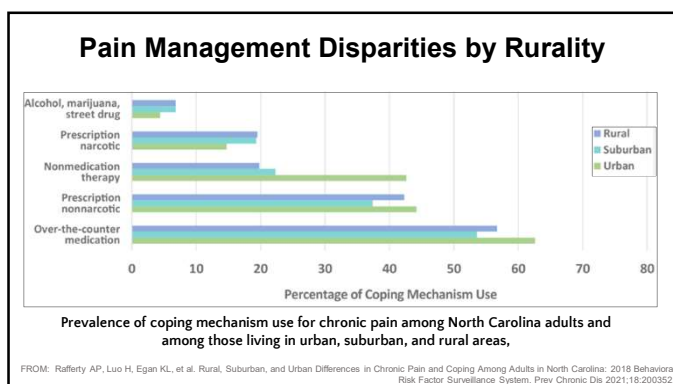




Disparities in Pain Management

- From 1999 to 2016, the rate of opioid mortality increased 4.5 times faster in rural versus metro communities
- From 2010 to 2016, rate of opioid mortality among Veterans increased by 46%.
- Persons residing in low-income communities have a 63% higher odds of receiving a prescription opioid for a new back pain diagnosis
- Persons who are non-white and those with lower household income are less likely to receive physical therapy for chronic musculoskeletal pain
- Use of self-management and nonpharmacologic pain treatments are lower in rural vs. non-rural settings and lower for persons of Hispanic/ Latino ethnicity

Lin et al. Am J Prev Med. 2019;57(1):106-110
Kenney T, et al. J Am Geriatr. 2017;65(12):2707-12
Ramasamy PP, et al. J Am Acad Orthop Surg. 2023;Feb.1, e-pub ahead of print.
Garcia MC, et al. Morbidity Mortality Weekly Report. January 18, 2019. 68(2):25-30
Estanek UK, et al. Pain Manag Nurs. 2018;19(1):8-13



Pain Management Disparities by Ethnicity

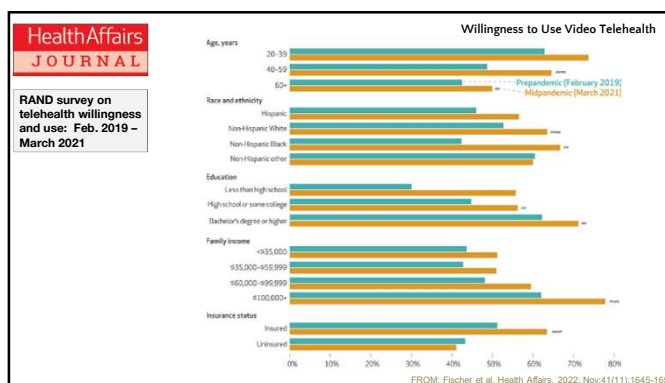
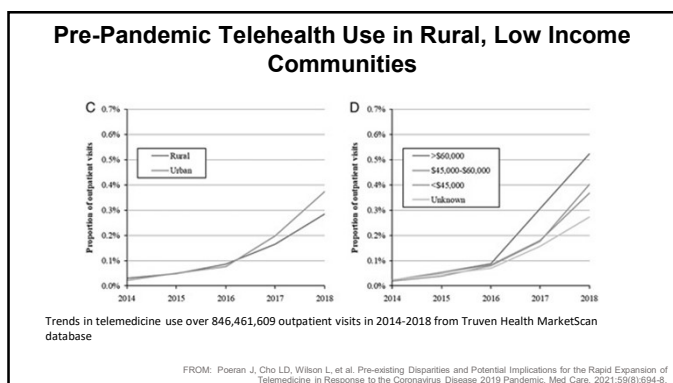
Among non-elderly adults, Hispanics face greater barriers to accessing health care than Whites

Barrier	Hispanic (%)	White (%)
Uninsured	25%	8%
Went Without Care Due to Cost*	22%	13%
No Usual Source of Care	25%	14%
No Health Care Visit*	25%	15%
No Dental Visit*	46%	32%

Pain management among foreign-born, Spanish-speaking Hispanics is informed by cultural perspectives

- May rely on self-care practices and delay medical attention
- May be unfamiliar with the US health care system and potential benefits of non-pharmacologic care
- May have had negative experiences with medical providers

FROM: Kaiser Family Foundation. <http://kff.org>
FROM: Torres CA, et al. An Examination of Cultural Values and Pain Management in Foreign-Born Spanish-Speaking Hispanics Seeking Care at a Federally Qualified Health Center. Pain Med. 2017;18(11):2058-2069.



Factors Associated with Decreased Likelihood of Using Telehealth During the COVID Pandemic

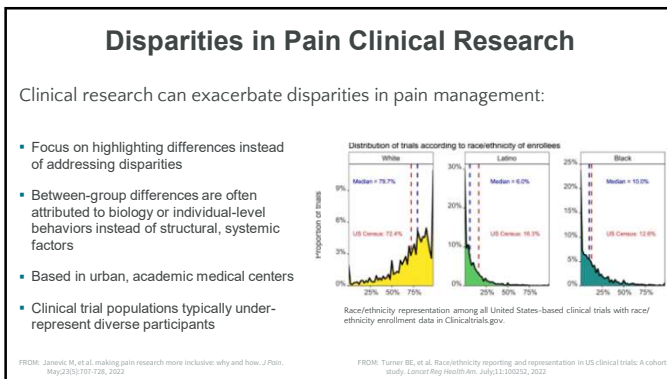
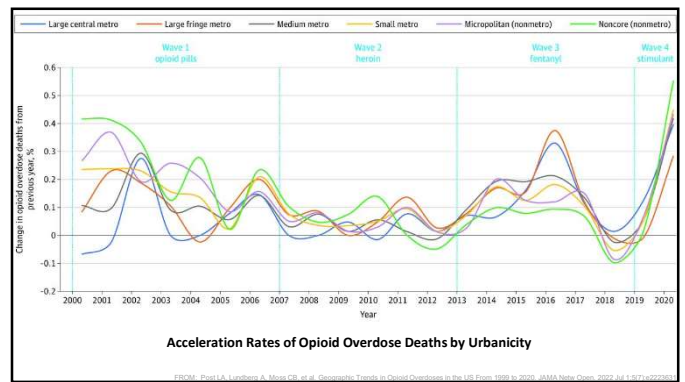
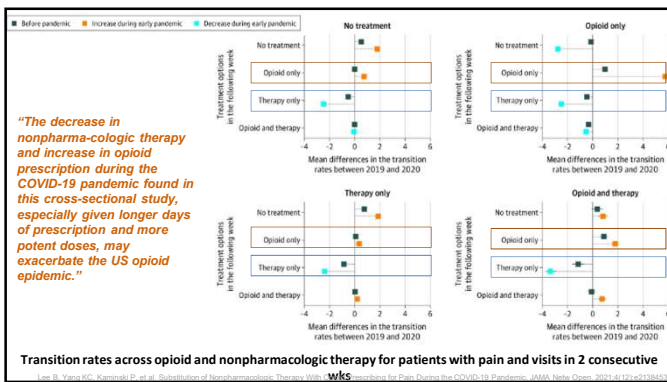
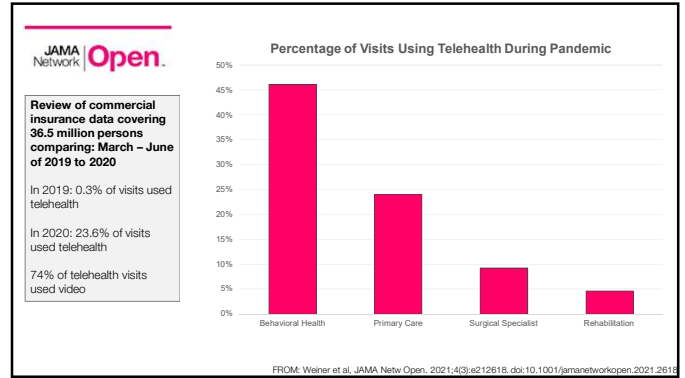
	A	B	C
Older Age	X	X	X
Lower Socio-Economic Status	X	X	---
Rural Community	X	---	---
Nonwhite Race	---	X (Black)	X (Black, Asian)
Non-English Speaker	---	X	---
Hispanic Ethnicity	---	X	X

--- not tested

A. Weiner et al, JAMA Netw Open, June 2021
Blue Cross claims data (n=36.5 million) conducted March - June, 2020

B. Eberly, et al, JAMA Netw Open, Dec 2020
Review of one academic medical center (n=148,402) conducted March - May, 2020

C. Ritzwoller, Med Care, Feb 2023
Review of EHR from 3 large health centers (n=10 million) conducted March, 2020 - June, 2021



Pragmatic Clinical Trials

- Broad inclusion criteria to recruit diverse participants
- Conducted in real-world clinical practice
- Real-world intervention options provided with greater flexibility
- Patient-centered outcomes

Pragmatic trials have the potential to reduce disparities by making participation in research more accessible and by evaluating, using rigorous methods for evidence generation, interventions targeting downstream effects of ... [disparities].

Dember L. The Potential for Pragmatic Trials to Reduce Racial and Ethnic Disparities in Kidney Disease. JASN 2022;33(9):1649-51


Pragmatic Clinical Trials



PACe-LBP Study
Physical Activity for Older Adults with Chronic Low Back Pain

AIM- Back Study
Improving Veteran Access to Integrated Management of Low Back Pain

BeatPain Utah Study
A Pragmatic Randomized Trial Examining Telehealth to Provide Non-Pharmacologic Pain Care for Persons with Chronic Low Back Pain Receiving Care in Federally Qualified Health Centers



Lessons Learned from Telehealth and MSK Pain Studies


Physical Activity for Older Adults with Chronic Low Back Pain (PACe-LBP)

AIM-Back Pragmatic Clinical Trial

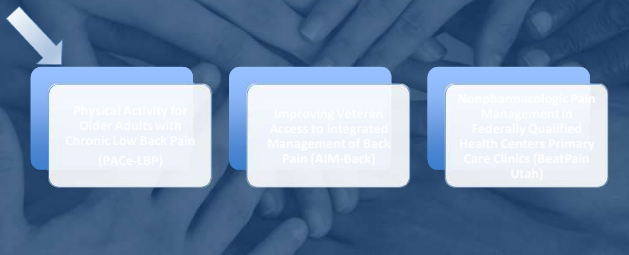
BeatPain-Utah

Background

- Within the US Department of Veterans Affairs healthcare system (VA) 50% -75% of patients report chronic pain to their primary care providers, one of the most common reasons is LBP (Bouchart, 2009).
- High-impact chronic pain in 80.4% of veterans seeking primary care for low back pain. (USASP Poster "Veterans with Low Back Pain: High Impact Chronic Pain Rates from Primary Care Clinics" George, SZ et al 2023.)
- Physical Activity (PA), is a simple intervention that can improve physical function in older adults and can be successfully delivered in the home setting (Opendaker, 2011).
- Cognitive behavioral therapy approaches, such as for pain (CBT-P), are associated with improved outcomes for LBP and can be adapted to a wide range of clinical settings, including telemedicine.




Incorporating telehealth in musculoskeletal pain studies



PACe-LBP Overview of Methods and Setting

- Single-blind randomized pilot feasibility trial (NCT03273225) approved by the Durham VA (DVAHCS) and Duke University IRBs.
- Baseline and follow-up assessments were conducted at the DVAHCS by a research assistant blinded to the assignment.
- Following baseline measures, older adults (>=65 years old) were randomized with equal allocation to one of 3 arms:
 - Physical Activity Only (n=20)
 - Physical Activity + Cognitive Behavioral Based Therapy (n=20)
 - Wait List Control (n=20)



Feasibility and Acceptability

Overall n=50 (83%) of participants completed the 12-week follow-up

- N=19 from PA only group
- N=16 from PA + CBT-P
- N=15 from Wait List Control

Average number of intervention calls completed (out of 13 possible)

- PA = 10 (SD=1.46)
- PA + CBT-P = 8.8 (SD=2.37)
- 10.6 and 10.4, respectively among non-withdrawals

Challenges and Opportunities



Availability of physical activity resources in rural areas



Access and availability of phone services





Adapting physical activity resources during the course of treatment



Level of in-person engagement during intervention delivery


What we learned

- A single in-person visit with a PT followed by a telephone supported home-based exercise program was feasible
- A telephone-supported exercise program could be a practical mechanism given the VA's demands for physical therapy services and access for rural individuals who live at a distance.
- These findings are preliminary, and a large clinical trial is needed to fully assess the effectiveness of interventions examined in this study.

Acknowledgements

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- Shannon Taylor




Phys Ther. 2018 May; 98(5): 369-380.
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PMCID: PMC6092845
PMID: 29695286

Effects of a Home-Based Telephone-Supported Physical Activity Program for Older Adult Veterans With Chronic Low Back Pain

Adam P. Goods,¹ Shannon, Sharr, Taylor,² Susan N. Hastings,³ Catherine Stanwyck,⁴ Cynthia J. Coffman,⁵ Kelli D. Allen¹



Next Step



PACe-LBP and Central Delivery for AIM-Back

Incorporating telehealth in musculoskeletal pain studies


Physical Activity for Older Adults with Chronic Low Back Pain

Improving Veteran Access to Integrated Management of Back Pain (AIM-Back)

Nonpharmacologic Pain Management in Federally Qualified Health Centers (Primary Care Clinics (BeatPain Utah))


Overview of AIM-Back and Central Delivery

- NIH Funded Large Pragmatic Multisite Cluster Randomized Clinical Trial (Steve George and Nicki Hastings, PIs)
 - Sequenced Care Pathway
 - Pain Navigator Pathway
- Centralized phone delivery of physical therapy and physical activity interventions
- Patients have two visits with clinical site PT but follow up with central delivery study PTs



Special Thanks
AIM-Back Central Delivery Team
and Tyler Cope, DPT

Nonpharmacologic Pain Management in Federally Qualified Health Clinics – BeatPain Utah



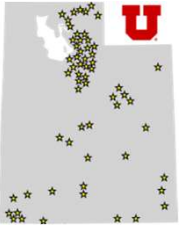
BeatPain Utah

& Some Lessons Learned Along the Way

ISAAC FORD PT, DPT
 BOARD CERTIFIED SPECIALIST IN ORTHOPEDIC PHYSICAL THERAPY
 LEAD RESEARCH PHYSICAL THERAPIST: BEATPAIN

BeatPain Utah: Overview

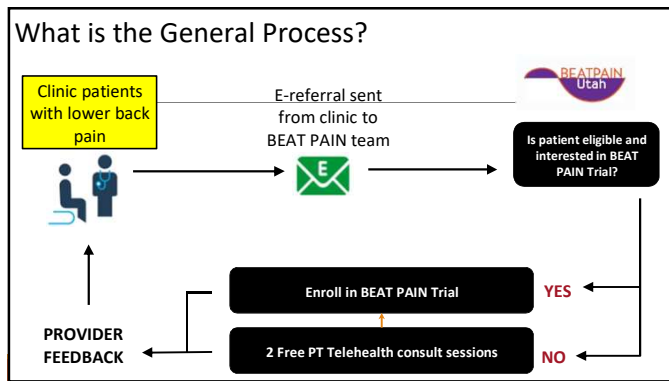
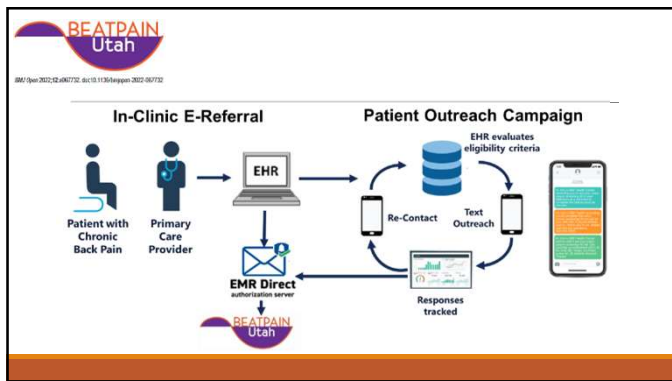
- Hybrid Type-1 pragmatic trial that recruits through Federally Qualified Health Centers (FQHCs) in Utah
- NIH funded
- Chronic low back pain
- Telehealth Physical Therapy delivered over video or telephone
- Services provided in English or Spanish

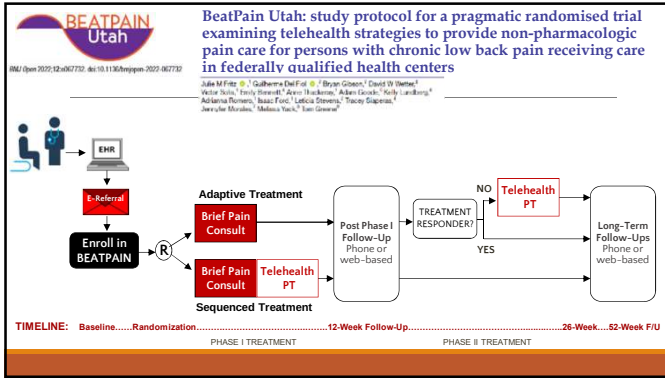


AUCH ASSOCIATION FOR UTAH COMMUNITY HEALTH

14 Utah health centers operate 60 clinics and provide care to more than 167,000 people annually

1 of every 20 Utahns	49% Hispanic/Latino Ethnicity	37% communicate in a language other than English	45% Uninsured
1 of every 4 uninsured Utahns	66% at or below the Federal poverty level	7% agricultural workers	47% of clinics are located in rural/frontier counties
1 of every 3 Utahns living in poverty			





Treatment Components in BeatPain

BRIEF PAIN CONSULTS (BPCS)

First Component of Study Treatment

Available to those referred to BeatPain regardless of study participation

Two 45 minutes sessions provided 1 week apart

Focuses of Treatment

- Building Therapeutic Alliance
- Education on Biopsychosocial model of pain
- Enhancing Patient Motivation to engage in positive change
- Cognitive Behavioral Approaches to address health domains identified in the discussion of biopsychosocial factors of chronic pain

TELEHEALTH PHYSICAL THERAPY SESSIONS

Second Component of Study Treatment

Immediately follows BPCS for half participants or is delayed until responder status is determined for half of the participants

10 weekly half-hour sessions

Focuses of Treatment

- Designed to build on the BPCS
- Continue Cognitive Behavioral Approaches to addressing maladaptive pain behavior
- Continue Motivational Enhancement
- Graded Rehabilitation Program including back specific exercises

Motivational Enhancement and Problem Solving (MAPS)

MAPS is the framework we use in our treatments to both provide education about the biopsychosocial model of pain as well as to develop treatment plans with our patients

MAPS is a communication approach that is empirically supported and comes out of the treatment of substance use disorders. It emphasizes a patient-centric approach to communication and combines:

- A Cognitive Behavior (CBT) approach to skills training and problem-solving
- Within a Motivational Interviewing (MI) Framework to enhance intrinsic motivation and reduce resistance to change

Things learned along the way: Telehealth

COMMUNICATION AND THERAPEUTIC ALLIANCE

- Training clinicians on effective communication approaches (MAPS) or (CBT)
- Building Therapeutic Alliance (TA) over Telehealth

ADAPTABILITY OF DELIVERY MODE

- Appropriate Telehealth platform
- Providing a phone-only option
- Asynchronous Materials

Things learned along the way: Patient Participation

FLEXIBILITY OF TREATMENT/SCHEDULING

- Time is a limited commodity for many of our participants
- Clinician Coverage and flexible scheduling options

STUDY PARTICIPATION

- Telehealth physical therapy novel and difficult to understand
- Option to connect with clinicians prior to enrollment

Things learned along the way: Integration/Collaboration

LOCAL PROVIDERS

- Offering Treatment to All
- No control groups
- Low/No Lift Referral Processes
- Complete Communication Loop

PARTICIPANTS

- Participant's unique environment
- Unanticipated barriers
- Treatment approach

Considerations for Implementing Telehealth Interventions in an Underserved Hispanic Community

Laura Vinci de Vanegas, PT, DPT

Board Certified Clinical Specialist in Orthopedic Physical Therapy

Unique Barriers to the Delivery of Telehealth within the Underserved Hispanic Community

Employment as a Barrier to Receiving Healthcare

- Variable work hours, contract employment, regular overtime work, and/or migrant work impact consistent availability to receive care.

- Dynamic telehealth schedule improves access to regular and continuous PT

Clinician Approach:

- "Shall we schedule on your lunch break this week? Would it help to check-in on your progress after your kids are asleep? Can I call you before you go to work in the AM?"

Environment as a Barrier to Participation in Exercise

- Living in multigenerational households results in high utilization of household space, neighborhood safety can impact the individual's ability to exercise outside (also impacted by work schedule).

- Exercise program development is centered around the individual's space and community with collaborative problem solving

Clinician Approach:

- "Tell me about where and when you could imagine yourself doing these exercises?"
- "It sounds like your free time to do exercise is in the AM/in the PM/in your lunch/in your living room/at your work/in your neighborhood. Shall we start exploring what kind of exercise works best for the space and time you have available?"

Cultural Competence in Telehealth Delivery of Care

Cultural competence in health care entails understanding the importance of social and cultural influences on patients' health beliefs and behaviors and considering how these factors interact within the healthcare delivery system.

Latinos represent a heterogeneous group originating from over 20 countries in Central and South America, Spain, and the Caribbean. Therefore, much variety exists in each individual's life and background.

However, the following constructs have been identified as significant in the daily lives of some Latinos and play an integral role in the delivery of culturally competent healthcare:

- Familismo** - Family orientation
- Personalismo** - Preference for relationships with individuals rather than institutions
- Respeto** - Respect
- Confianza** - Trust within a relationship
- Fatalismo** - Fatalism: a belief that events are predetermined
- Aguantarse** - The ability to withstand stressful situations during difficult times

Cultural Values: Impact on the Delivery of Care

Familismo	Family orientation	Pain management goals are established around family values and family impact.
Personalismo	Preference for relationships with individuals as opposed to institutions	Participants are matched with a PT with whom they will develop a program over 12 visits.
Respeto	Respect for the individual	MAPS/MI are focused on patient-centered goals. Pain management programs are highly individualized.
Confianza	Trust within a relationship	PTs use open ended questions to develop trust within relationship. Access to a consistent care provider promotes trust.
Fatalismo	Belief system that events are predetermined	PTs assist with creating concrete goals to promote action and accountability.
Aguantarse	The ability to put up with hardship	PTs highlight resiliency as a positive indicator of response to intervention.

MAPS/MI Cultural Considerations

MAPS and MI play an integral role in establishing a therapeutic alliance within the study

MAPS/MI are uniquely patient-centered and patient-driven methods of delivery care. However, it is common for individuals from Central and South American countries to be accustomed to an authoritarian professional style.

Challenge: The open-ended questions of MI are a novel approach to receiving healthcare and can create barriers in communication and relationship building initially.

Strategies:

Take specific time to outline the collaborative nature of the treatment approach and the rationale behind it

- "Our goal is to work together to create a pain-management plan that works for you as the individual - we will spend some time today finding a starting place that seems most important to you."

Utilize the "Elicit, Provide, Elicit" strategy to create a space for delivery of information that remains patient-centered

- Elicit information about current knowledge base. Ask permission to provide additional information. Elicit responses/reactions.

Provide a menu of options to create a framework for discussion

- "We could start this exercise program by working on improving mobility, increasing strength, or initiating cardiovascular exercise. Do any of those options sound like something you'd like to explore first?"



Using cultural values to promote intrinsic motivation

Connecting Values with Behaviors for Internal Motivation

Establish low back pain's effect on values and responsibilities.	"My back pain prevents me from playing with my grandchildren. I can't get on the floor without pain."
Connect Value to Goal	"By doing these exercises, I will be able to play with my grandchildren with less pain and disruption."
Connect Value to Progress	"I have participated my program 4 times this week, and I was able to get on the floor to play as opposed to sitting in a chair."
Connect Value to Maintenance	"I plan on participating in this program to be able to remain available to play with my grandchildren"

Lessons Learned and Opportunities for Development

- **Scheduling**
 - Participants trend towards needing variable accommodations with their weekly schedules
 - Dynamic scheduling accommodates the variable availability of patients from underserved communities
 - Even with dynamic scheduling, it is common to have 1-2 weeks of missed visits
- **Compliance:**
 - Some challenges with "agreeable" patients who don't want to admit poor response to prescribed exercises or difficult participation
 - Regular check-ins on a weekly basis improve compliance with home exercises and promotes a strong therapeutic alliance to increase trust and candor
- **Prescribing exercises via "MedBridge"** often requires extra time and education to promote participation in additional online resource that is novel.
 - Opportunity for catering the delivery of prescribed exercises to participants' preferences to improve utilization.
 - Many Hispanic/Latino participants express interest in WhatsApp for receiving exercise prescription.
 - Per Pew Research Group in 2021: 23% of the American population uses WhatsApp. Users identifying as Hispanic accounted for 46% of those users.
- **Connectivity:**
 - Internet access tends to be variable/inconsistent
 - Regular access to a phone and a consistent phone number has not been a challenge within the study
 - Offering opportunities for video vs. phone call provides options for preference, but also solutions depending on availability of communication resources.
- **Enrollment/Participant:**
 - Lack of trust within healthcare is common among populations from underserved communities
 - Options to receive care with or without full enrollment in study promotes participant engagement
 - Participant ability to meet following first session with physical therapist improves overall enrollment upon developing some trust with clinician