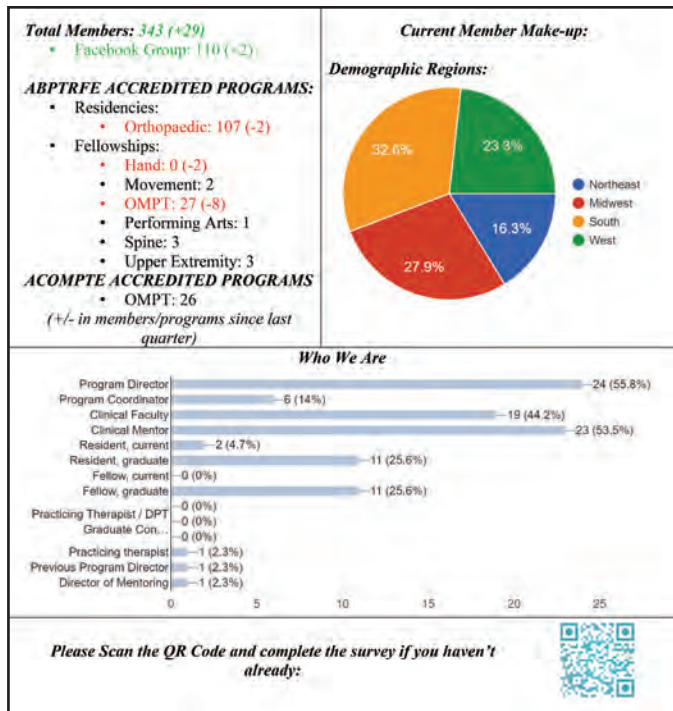


ORF-SIG Dashboard:



The ORF-SIG would also like to thank the members of COVID-19 Subcommittee for their time and effort putting this document together.

- **Subcommittee Members:** Kirk Bentzen, Kathleen Geist, Steven Karcha, Molly Malloy, Carrie Schwoerer

*Stay Healthy,
 Matt Haberl
 ORF-SIG President*

Accreditation Guidelines

1. **American Board of Physical Therapy Residency and Fellowship Education (ABPTRFE) Accreditation Guidelines**
 - a. Guidance provided by the ABPTRFE if a program is affected by COVID-19.
 - i. ABPTRFE provided temporary guidance that will remain in effect for all programs until informed that guidance is no longer in effect.
 - ii. ABPTRFE recommended that all programmatic changes are reviewed by the institution's legal counsel.
 - iii. ABPTRFE recommended the use of online, remote or virtual technologies for delivery of educational hours even if these methods were not previously utilized by the program. Programs will not need to submit a substantive change form for the use of distance education during the pandemic.
 - b. ABPTRFE specific program requirement waivers for programs affected by COVID-19:
 - i. **Practice Setting:** Programs may waive the minimum hours within a required practice setting.
 - ii. **Practice Hours:** Programs may waive up to 50% (750 residency, 425 fellowship) of the total practice hours provided the participant has met the program outcomes.
 - iii. **Mentoring Hours:** Programs may waive up to 50 hours of the 150 hours of 1:1 mentoring. A minimum of 65 hours of mentoring must be in person (1:1) for residency programs and 50 hours must be in person (1:1) for fellowship programs.
 - iv. **Faculty Evaluations:** ABPTRFE is suspending the requirement for faculty evaluations including the annual mentor observation evaluation.
 - v. **Other program outcomes** not specifically addressed by one of the above waivers should be met for program completion.
 - c. Complete ABPTRFE statement may be found here:
 - i. <https://apta.informz.net/APTA/data/images/ABPTRFE/ABPTRFEGuidanceOnCOVID-19.pdf>
2. **Accreditation Council on Orthopaedic Physical Therapy Education (ACOMPTE) for accredited Orthopaedic Manual Physical Therapy Fellowship Programs.**
 - a. **Guidance provided by ACOMPTE if a program is affected by COVID-19:**
 - i. ACOMPTE provided temporary guidance that will

ORF-SIG Members,

It is hard to believe that just a few months ago several of us were all together at the 2020 Combined Sections' Meeting. Since then we have seen a significant change of events with the coronavirus (COVID-19) pandemic turning to the center of all our lives. Our thoughts and prayers go out to all individuals who have become ill, and/or lost family and friends due to the pandemic. Additionally, we know the pandemic has extended beyond our hospital walls greatly affecting the community as many private practices as well as outpatient clinics have temporarily closed to prevent the significant spread of the virus. We want to thank all those who have been in the front lines of health care directly fighting the virus as well as the other members of society assisting with the development of personal protective equipment and creating resources for businesses to sustain the long term impacts we may undergo.

The impact of COVID-19 has affected us all, including our physical therapy residency and fellowship programs. In doing so this has created significant challenges for all members involved in residency and fellowship education. To assist programs, faculty, and participants through these challenging times the Orthopaedic Residency and Fellowship Special Interest Group (ORF-SIG) has collaborated in creating a resource for programs to continue providing options for post professional education. This resource will continue to be updated as new information is provided. Please subscribe to the ORF-SIG APTA Communities Hub to collaborate and discuss your program challenges and triumphs.

<http://communities.apta.org/p/fo/st/thread=15235>



- remain in effect for all programs until informed that guidance is no longer in effect.
- ii. ACOMPTE recommended that all programmatic changes are reviewed by the institution's legal counsel.
- b. ACOMPTE specific program delivery changes for programs affected by COVID-19:**
- i. For fellows-in-training (FiT) on track to graduate spring or summer 2020 and are unable to extend the length of their time in the program, ACOMPTE supports program modification using virtual technology to ensure the total 150 hours of 1:1 mentorship hours with a Fellow of AAOMPT are completed with a reduction in non-Fellow AAOMPT mentorship hours provided the FiT has met the program outcomes.
 - ii. Potential options to consider include, but are not limited to:
 1. Delaying or extending normal program completion time frames
 2. Delayed graduation
 3. Putting the program "on hold" for a period of time
 4. Delaying future cohorts of learners
 5. Options at this time not evident, but those that may be identified by PDs, and presented to ACOMPTE at a later time in defense of actions taken.
 - iii. **Time Extension:** Programs may offer a specific time extension.
 - iv. **Educational Hours:** Programs may use online, remote, or virtual technologies for delivery of educational hours, even if those methods were not previously used by the program.
 - v. **Required Practice Setting:** Programs may waive the minimum hours within a required practice setting.
 - vi. **Curriculum Changes:** Programs may develop alternative assessments.
 - vii. **Practice Hours:** Programs may temporarily waive up to 50% of the total practice hours, provided the participant has met the program outcomes, AND at least 500 total hours of fellowship training is completed by each individual FiT.
 - viii. **Mentoring Hours:** The PD has the discretion to allow that some portion of these mentoring hours may occur in-person or using synchronous or asynchronous methodologies. The clinical supervision standards remain in effect.
 - ix. **Faculty Evaluations:** ACOMPTE is temporarily suspending the requirement for faculty evaluations, including the annual mentor observation evaluation.

Ensuring participant completion

1. Change in educational delivery options:

Each program must make their own decisions regarding the best actions to take to ensure continued education for its participants, while following national, state, and local regulations/ recommendations. The COVID-19 pandemic may lead to a delay in the normal program completion time for participants. Decisions to participate in practice sites, extend time

to graduation, and/or delaying the start of the program's start date may pose ethical and legal consequences; therefore, programs are encouraged to have program changes be reviewed by legal counsel representing their institution/program.

a. Educational Hours and Didactic Content:

- i. Educational requirements for residency and fellowship programs remain unchanged; however, programs may alter the methodology in which the didactic content and educational hours are delivered. The utilization of online, remote, or virtual technologies can be implemented for delivery of educational hours, even if those methods were not previously used or reported in the accreditation documentation.
- ii. The American Council of Academic Physical Therapy (ACAPT) provides a variety of resources to assist faculty in the transition to an online learning format.
 1. <https://www.acapt.org/covid19-response>

b. Timing of delivery:

- i. Programs may alter the curricular sequence by providing an increase in didactic content during this period of limited patient and provider contact reserving more in-person learning opportunities at a later date.

c. Skills Check Offs:

- i. Skills check offs and manual labs fall under "Educational Hours" which the ABPTRFE guidance states that the program can modify the format to an online or virtual learning mode to assess skills during this time. Labs can be completed virtually provided the learning will be consistent as well as the ability of the program to assess resident achievement of the outcomes.
- ii. In the absence of virtual labs, programs have tasked participants with identifying psychometric properties of a test/measure/hands on skill as well as patient and provider positioning to successfully complete the skill.

2. Utilization of telemedicine/education

a. Patient Care hours:

- i. When possible, programs should still attempt to meet minimum practice hour requirements within required practice settings outlined within the DRP/DFP for the program's area of practice.
- ii. **Telemedicine:** Hours completed via Telemedicine with a typical patient population for the residency will be allowed to count as patient care hours.

b. Mentorship hours:

When possible, programs should still attempt to meet minimum mentorship hour requirements. Given limited patient interaction and institutional restrictions on number of individuals within a clinic the following exceptions have been applied:

i. 150 Total Hours Requirement:

1. **ABPTRFE Total Hours minimal requirement reduced to 100 hours:**
 - a. **65 hours: 1:1 Mentorship**
 - i. **ABPTRFE:** No change in the way these hours are obtained has changed. Qualifi-

cations for 1:1 mentorship still requires the mentor and participant fully present during patient care mentoring.

b. 35 Hours: Non 1:1 Mentorship

i. **ABPTRFE:** Mentoring hours are allowed to be completed virtually through video conferencing, online or via phone discussion.

2. **ACOMPTE:** ACOMPTE supports program modification using virtual technology to ensure the total 150 hours of 1:1 mentorship hours with a Fellow of AAOMPT are completed with a reduction in non-Fellow AAOMPT mentorship hours provided the FiT has met the program outcomes.

a. Program directors may use discretion allowing some portion of these mentoring hours may occur in-person or using synchronous or asynchronous methodologies. The clinical supervision standards remain in effect: 75 hours of technology based distant synchronous and asynchronous mentoring and 75 hours of direct mentoring (1:1) with a FAAOMPT. It is preferable that the important 75/75 hours 1:1 direct Mentorship with a FAAOMPT Fellowship training be direct and in person if possible.

c. Live Exams:

i. Programs are allowed to use alternatives for live patient exams such as videotaping or via telemedicine. A new evaluation can be completed and the program director/mentor can watch the recorded video or watch live via zoom to use as a live patient examination for the assessment of residents. The program coordinator is required to fill out the same grading form. The alternative methods must demonstrate that the program is still able to assess resident progress and that they are meeting program goals/outcomes.

d. Telemedicine Resources:

i. Telemedicine guidelines and state practice acts are continually changing where we encourage practitioners to routinely refer back to resources for updates.

1. The APTA has compiled a variety of resources regarding Medicare/Medicaid and other third-party payers' guidelines as well as state practice acts allowing telehealth.
 - a. <https://www.apta.org/Telehealth/>
2. Telehealth Physical therapy provides a variety of resources including a library of actual PT/patient telehealth video sessions.
 - a. <https://www.apta.org/Telehealth/>

Program Sustainability

1. Applicant and Program Sharing:

Many institutions are currently on a hiring freeze jeopardizing whether they will be accepting participants this next year. Additionally, a delay in entry-level students graduating due to early termination of clinical rotations and/or a delay for graduated students to sit for the National Physical Therapy

Exam may create a shortage in applicants. To assist with this, programs are encouraged to share any openings they have and/or available qualified applicants who they cannot retain.

a. Residency and Fellowship- Physical Therapy Centralized Application System (RF-PT-CAS) users:

i. If your program is in need of applicants and you have surpassed the deadline listed on RF-PTCAS, consider extending the RF-PTCAS deadline or changing the deadline to rolling admission. As soon as this is completed, applicants will again be able to see that your program is accepting applications.

b. Non RF-PTCAS and RF-PTCAS users:

i. The ORF-SIG has shared a survey for programs to provide to applicants not accepted into your program and are still seeking a resident/fellowship position this coming year.

ii. If you have **additional qualified applicants** to share:

1. Please provide the applicant access to this survey acknowledging that they are willing to share their information with other programs to contact them.

a. Link:

<https://forms.gle/pUFiTnERTJphjhb06>

2. Also, please provide these applicants with the list of Programs listed in the **In Need of Applicants tab** for the participant to reach out.

iii. If you are in need of applicants, please add your program's name and contact information to the **In Need of Applicants tab**.

1. Please update this list regularly. Posts will be deleted after 12 months to make sure this is kept up-to-date.

2. Link: <https://docs.google.com/spreadsheets/d/1-FjtY4YzTbbgO-9hIMXk22vcCxxQ1q6Wb6IZm5dlAkd4/edit?usp=sharing>

2. Alternative financial resources

a. Tuition assistance

i. Programs may consider use of institutional foundations to provide scholarship/grants to cover tuition in part or fully.

ii. Programs may consider deferment of tuition.

iii. Programs may consider a payment plan for tuition over the course of the year.

b. Unemployment Information

i. Resident and/or faculty can be directed to: <https://www.usa.gov/unemployment> for further guidance related to unemployment and COVID-19 specific programs

ii. Please visit your state's Department of Labor/ Department of Workforce Development for state specific processes. An unemployment benefits finder by state is accessible at:

1. <https://www.careeronestop.org/LocalHelp/UnemploymentBenefits/Find-Unemployment-Benefits.aspx?newsearch=true>

c. Small Business Administration (SBA) Resources

i. Coronavirus Small Business Guidance & Loan Resources are available at:

1. <https://www.sba.gov/page/coronavirus-covid-19-small-business-guidance-loan-resources>
- ii. Additional information related to support of business planning and counseling, can be found at (scroll toward bottom of page):
 1. <https://www.sba.gov>
- d. Private Practice Section of the APTA (PPS) Resources:
 - i. PPS has collected a variety of resources for private practices regarding how businesses can respond to the CoVid-10 pandemic including both financial and human resources related topics.
 1. <https://ppsapta.org/physical-therapy-covid-19.cfm>

2020 CSM ORF-SIG Residency/Fellowship Poster Winner

Consideration of Health Literacy and Acculturation in a Non-Native English-Speaking Patient: A Case Report

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ABSTRACT

Background and Purpose: Low health literacy and acculturation are risk factors for poorer health outcomes. The purpose of this case report is to describe the assessment of health literacy and acculturation in a non-English speaking patient seeking physical therapy, and how this information was used to modify the treatment approach by a physical therapist of a dissimilar cultural and language background. **Methods:** The Basic Health Literacy Screen (BHLS) and Short Acculturation Scale for Hispanics (SASH) were administered to a Hispanic non-English speaking male after total knee arthroplasty. **Findings:** The patient presented with low BHLS and SASH scores. Thus, exercise selection and dose, and language complexity for clinical and home exercise programs communication strategies, were manipulated to minimize cognitive burden and to optimize therapeutic alliance. The patient demonstrated excellent compliance and was discharged from physical therapy having met all personal and performance goals. **Clinical Relevance:** There are demographic and cultural discrepancies in the constituency of the general population compared to the physical therapy professional body in the United States. Consideration of health literacy and acculturation can help therapists to bridge this gap and build therapeutic alliance with non-English speaking patients.

Key Words: clinical reasoning, compliance, culture, therapeutic alliance

BACKGROUND

Therapeutic alliance is known to significantly affect patient outcomes;¹ however, language and cultural differences may present barriers to the development of therapeutic alliance between physical therapists and their patients. Hispanics are now the largest minority group in the United States, and approximately 40% of the Hispanics living in the United States are foreign-born.² However,

88.5% of physical therapists practicing in the United States identify as Caucasian, while only 2.5% are Hispanic/Latino and 1.5% are of African American descent.³ Furthermore, in Miami-Dade County Florida, the demographic discrepancy between physical therapists and the general population might be even greater, considering 68.6% (1.89 million) of Miami-Dade residents identify as Hispanic/Latino and 52% are foreign born.⁴ Therefore, physical therapists working in the Miami-Dade area, or other cities with large immigrant populations, are faced with a predicament: How do we, as a majority Caucasian and English-speaking professional body, build therapeutic alliance and optimize outcomes with non-English speaking patients?

Health literacy and acculturation are two measurable variables that are likely to impact therapeutic alliance and physical therapy outcomes with non-English speaking patients. Health literacy is defined as the ability to understand and make required health decisions to function in the health care environment.⁵ It is estimated that only 12-26% of United States adults have proficient health literacy and that only 50% of the Hispanic and African American population in the United States are functionally literate.^{6,7} Lower levels of health literacy are linked with poorer health outcomes, lower use of preventative services, higher rates of non-adherence with medication, higher hospitalization rates, and higher rates of chronic illness and mortality.^{8,9} The U.S. Department of Health and Human Services has identified being from a racial/ethnic minority group, being a Non-native English speaker, and recent immigration to the United States as risk factors for lower health literacy.¹⁰ Further, the U.S. Department of Health and Human Services developed a National Action Plan to Improve Health Literacy in 2010 with two main principles: (1) all people will have the right to health information that helps them make informed decisions, and (2) health services should be delivered in ways that are easy to understand and that improve health, longevity, and quality of life.¹⁰ However, health literacy remains an often over-looked aspect of patient centered care in the U.S. health care system.¹¹

Acculturation is the process of adopting behaviors, beliefs, and cultural elements of the dominant group in society. John Berry developed a model of acculturation with 4 categories: assimilation, separation, integration, and marginalization.¹¹ Assimilation is the adoption of the receiving culture and discarding one's heritage culture. Separation, on the other hand, is the rejection of the receiving culture and retaining of one's heritage culture. Integration is a middle ground and describes adopting the receiving culture while retaining ones heritage culture, and marginalization describes the rejection of both the receiving and heritage culture.¹¹ Studies have demonstrated that higher acculturation is associated with increased health-promoting behaviors (eg, preventative screens and contraceptive use) and increased physical health and emotional well-being.^{12,13} A 2008 survey of Hispanic young adults in Miami, Florida found that those who identified as blended-bicultural individuals, equivalent to the integration category, reported lower social and emotional stress.¹¹ Thus, a patient's level of acculturation is likely to influence the patient-therapist interaction and may affect health outcomes.

A stronger alliance between therapist and patient is associated with greater patient self-efficacy, increased provider empathy, increased patient agreement with treatment recommendations, and it is a significant predictor of patient satisfaction and adherence to treatment recommendations.⁹ With consideration of a foreign-born patient's level of acculturation, physical therapists can

manipulate variables in the plan of care such as language use, non-verbal communication, physical contact, and educational materials to optimize therapeutic alliance and work with the patient toward mutually agreed upon goals.⁹ The purpose of this case report is to describe the assessment of health literacy and acculturation in a non-English speaking patient seeking physical therapy, and how this information was used to modify the treatment approach by a physical therapist of a dissimilar cultural and language background.

CASE DESCRIPTION

The patient was a 63-year-old Cuban male with minimal English language proficiency 6 days status post left total knee arthroplasty (TKA) secondary to a varus deformity and osteoarthritis. The patient also had comorbid hypertension and type II diabetes, controlled with Lorisartan 100mg, Amlodipine 10mg, and Metformin 500mg. The patient lived with his wife, who also had minimal English language proficiency, and their 2-year-old son. The patient's goals focused on improving his tolerance for activities of daily living (ADLs) and recreational activities, with the ultimate goal of being able to play with his son on the playground.

The treating physical therapist was a Caucasian, native English-speaking female with limited Spanish language proficiency from high school and college level courses. The patient received 6 weeks of physical therapy services, during which time he was solely seen by this therapist. Translation services were used on rare instances when it was deemed that the potential for miscommunication would compromise the patient's safety. Specifically, there was an incident of increased lower extremity edema and concern for a deep vein thrombosis, and a translation service was used during this incident to mitigate the risk of miscommunication.

SELF-REPORTED OUTCOME MEASURES

The Brief Health Literacy Screen (BHLS) and Short Acculturation Scale for Hispanics (SASH) were administered to assess health literacy and acculturation, respectively.⁵ The Brief Health Literacy Screen consists of 4 questions that assess how often the individual requires assistance with health care related tasks and how confident the individual is with completing forms and tasks without assistance. The sum is recorded, and the scores are categorized as limited,⁴⁻¹² marginal,¹³⁻¹⁶ or adequate health literacy.¹⁷⁻²⁰ A score in the limited range provides insight that the patient may not be able to read most low literacy health materials. Therefore, clinicians should be aware that patients with scores of "limited" on the BHLS may need repeated oral instructions and may not be able to read a prescription label. For these patients, educational materials should be composed of illustrations or video recordings. A score of "marginal" implies that the patient may require assistance and may struggle with some educational materials, while an "adequate" score implies that the patient is able to comprehend nearly all health care related conversations, tasks, and educational materials. The BHLS has been shown to have adequate internal reliability and concurrent validity when administered by nurses in both outpatient clinic and inpatient hospital settings.¹⁴ In this case report, a native Spanish speaker assisted the treating physical therapist with translating the BHLS into Spanish, and it was then administered to the patient at initial evaluation.

The SASH was also provided during the initial evaluation.¹² The SASH has been validated in Spanish and it assesses the patient's

acculturation via 4 questions regarding what language they prefer to speak at home and in social situations. The score choices range from 1-5 and an average is taken from the patient's answers. A score lower than 2.99 is considered low acculturation.¹⁵

The patient scored 10 on the BHLS and 1 on the SASH indicating that the patient was limited in his health literacy and had low acculturation. Further, the patient scored a 29/80 (63.75% disability) on the Lower Extremity Functional Scale (LEFS) and 2/52 on the Pain Catastrophizing Scale (PCS) indicating high self-reported disability and low pain catastrophizing.

INTERVENTIONS

Based on his BHLS and SASH scores, care was taken to manipulate (1) the dosage of therapeutic exercise and activities and (2) the verbal and written language used when communicating with the patient (Figure 1). In response to the low health literacy score, methods were used in the prescription of exercise dosing, patient education, and home exercise programs (HEP) to minimize cognitive burden. Exercises were initially prescribed with simple and consistent instructions for sets and repetitions (eg, 3 sets of 10 repetitions for easy recall), using language that was also concise and simple. Explanations were typically only one or two sentences. These parameters were chosen with the goal of optimizing patient comfort with the rehabilitation process and optimizing early compliance (Table 1).

In response to the low acculturation score, the physical therapist provided all verbal and written communication with the patient in Spanish. Although the physical therapist had limited Spanish language proficiency, the use of translators was minimized throughout the plan of care to optimize the therapeutic alliance between the patient and therapist. The books "Spanish for the Physical Therapist: Bridging the Communication Barrier" by Asiya Nieves⁶ and "Speedy Spanish for Physical Therapists" by Thomas Hart¹³ were used as resources for verbal and written communication.

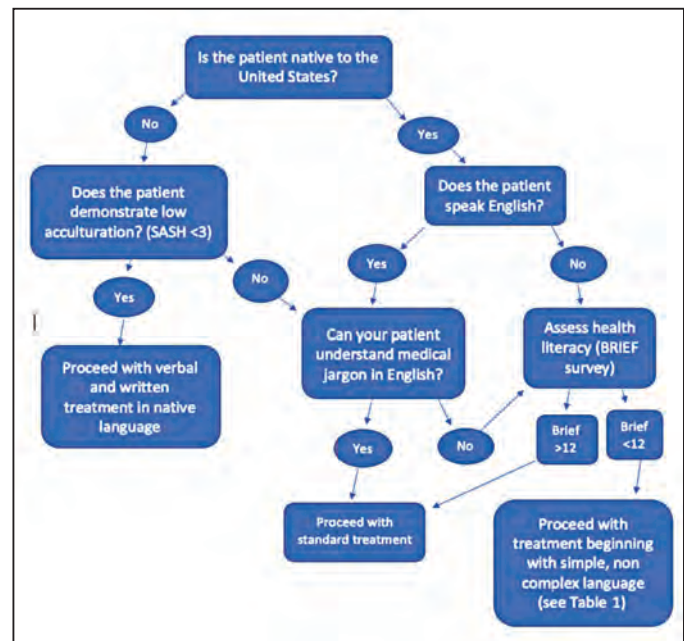


Figure 1. Decision tree for integration of acculturation and health literacy into clinical reasoning.

Table 1. Clinical Reasoning for Intervention Modification

Treatment Variable	Rationale	Intervention Modification
Language	Low acculturation	Spanish only (verbally and written)
	Low health literacy	Non-complex language Simple commands Short, concise sentences
Exercise Dosage and Parameters	Low health literacy	Simple, consistent dosages across exercises (3x10) for reduced cognitive burden Progressed exercise complexity (ie, uniplanar, BLE to multi-joint unilateral activities)
Home Exercise Program	Low health literacy	Short, concise sentences in Spanish only Ample pictures provided
Cultural Considerations	Low acculturation	Initially the wife was incorporated into therapy sessions, and slowly the patient progressed to completing entire therapy sessions without family support Discussions on his culture were integrated into the therapy sessions to gain insight to his preferences and thought process
	Low health literacy	Discussions on chronic disease management were integrated into therapy sessions to educate and encourage improved self-management

Table 2. Personal and Performance Related Measures/Goals

Objective Finding	Initial Evaluation	Progress Note	Discharge Note
Lower Extremity Functional Scale Score	29/80	58/80	68/80
Knee Flexion Active Range of Motion	46°	105°	115°
Knee Extension Active Range of Motion	Lacking 8°	Lacking 2°	0°
5x STS	22 seconds (with RW and UE support)	10 seconds (no AD or UE support)	Patient able to perform single leg STS from sitting at 90° hip and knee flexion (x30)
Single limb balance	Unable to perform; Used RW for support, difficulty weight shifting into SLS	30 second hold (goal met)	Patient able to perform SLS on airex pad with ball tosses from therapist (x30)
Straight leg raise	Unable to perform without extension lag and ~50% assistance from therapist	Independent with 5° extension lag	Independent without extension lag and 5 lb ankle weight (x30)
Gait	With RW, step to pattern	With standard cane	Daily walks with son and wife without AD
Recumbent bike	Unable to perform due to ROM limitations	Performed in clinic for 10 minutes per session	Performed in home 15-30 minutes (~3x/week)
Abbreviations: STS, sit-to-stand; RW, rolling walker; AD, assistive device; UE, upper extremity; SLS, single limb stance; ROM, range of motion			

OUTCOMES

In total, the patient received 6 and a half weeks of skilled PT intervention. At the time of discharge from physical therapy, 9 weeks postoperative, he met all personal and performance related goals (Table 2). Additionally, his LEFS score improved to 68/80 (15% disability), which was a 49% improvement in self-reported disability. Other notable findings included the patient’s improvements in overall physical wellness, exceptional compliance with the HEP and therapy visits, and improved understanding and self-management of his chronic conditions. The patient adopted

supplementary pro-health and preventative behaviors that were not present prior to the TKA surgery. He reported performing aerobic exercise using a seated stationary bike at home for 15-30 minutes 3 times per week with a personal goal of improved physical wellness. The patient verbalized understanding of diabetic complications, and he was compliant with purchasing and using compression stockings for edema management. He also altered his workstation to allow for elevation of his lower extremities for swelling reduction.

DISCUSSION

This treatment approach, with focused consideration of health literacy and acculturation factors, likely contributed to the strong therapeutic alliance developed between therapist and patient and the excellent compliance demonstrated by the patient. Further, the strong therapeutic alliance and patient compliance may have driven the good patient outcomes observed with this patient who had multiple risk factors for poor outcomes (ie, comorbid chronic disease, low socioeconomic status, low acculturation, and low health literacy). Another unanticipated benefit of this approach was that the treating therapist self-identified personal growth with cultural competency. Thus, using health literacy and acculturation in clinical reasoning appears to have numerous benefits for patient management.

The patient went to great lengths to maintain exceptional compliance with physical therapy session attendance. Despite traveling 15 miles to the clinic for each appointment, often in heavy traffic, the patient was never late to an appointment and he only cancelled one appointment throughout his plan of care. On the one occasion of cancellation, he drove the 15 miles to the clinic just to explain to the treating therapist in person that he had a personal issue of great importance and would need to miss his appointment later that day. This event was strong evidence of the therapeutic alliance built between the therapist and patient despite their communication barriers and cultural differences.

Overcoming the communication barriers and cultural differences with the patient also led to professional and intrapersonal growth for the treating physical therapist. She reported feeling pushed to improve and refine her nonverbal communication and observational skills in order to establish patient rapport through avenues outside of explicit word choice. She also felt that the decision to minimize the use of translators allowed the patient and physical therapist to bond through their struggles to communicate. This allowed for the patient and physical therapist to directly share experiences of humor, frustration, and gratitude throughout the plan of care. Further, the growth of the physical therapist's cultural competency is of important note. Through conversations with the patient and his wife, the therapist gained knowledge of the Cuban culture and traditions. This information was used when setting goals by prioritizing aspects of the patient's beliefs and values. For example, the importance placed on family in his culture was incorporated into the physical therapy goals and plan of care by encouraging him to go on daily walks with his wife and take his son to the playground.

The primary limitation of this case study was the use of an unvalidated translation of the BHLS into Spanish. Although there are other tools for assessing health literacy, the BHLS was chosen because it is short, efficient, and direct with uncomplicated word choice. Additional research is warranted to determine if a standardized approach to modifying patient management based on health literacy and acculturation results in improved outcomes. In conclusion, this case report highlights the importance and value of integrating health literacy and acculturation factors into clinical reasoning to optimize outcomes and compliance in non-English speaking populations when there are communication and cultural barriers.

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