**Outcomes**

- Average adherence to exercise frequency = 60%
- Average adherence to exercise prescription (completion of all exercises prescribed) = 10%
- Progressive improvement in activity tolerance and management of pain
- Patient actively communicated with treatment team via InHand™ for clarification of exercises and strategies for addressing pain
  - Patient verbally confirmed completion of exercises on some days without tracking exercises with the app
  - Patient reported she “loves the app to keep on track and do the exercises correctly” and is “gaining confidence in recovery”
  - The treatment team provided encouragement and support via the direct messaging of the app

**Intervention**

- Physical Therapy: 3 times per week, 8 weeks
  - Treatment Team: physical therapist and physical therapist assistant
  - Rotator Cuff Repair Protocol: Brigham & Women’s Hospital
  - Phase 1 Treatment Focus: Pain modulation, improve PROM, distal upper extremity and scapular strengthening
  - Phase 2 Treatment Focus: Continue tissue healing, rotator cuff strengthening and stabilizing
  - Home Exercise Program: Initiated at 2nd visit with Physical Therapy InHand™ mobile app
    - Phase 1: AAROM with pulleys and a wand and passive stretching to improve ROM and shoulder mobility, and scapular retraction and shoulder isometrics for neuromuscular re-education
    - Phase 2: Light resistance and modified bodyweight exercises for rotator cuff strengthening and stabilization, scapular mobility exercises in prone and standing, and functional overhead reaching
    - Exercise Prescription Parameters for: neuromuscular re-education, stretching
    - Monitoring adherence, pain response, recovery via InHand™ app

**Clinical Implications**

- Current research demonstrates patient satisfaction, improved confidence in managing their condition, and usefulness of HEP apps, with overall improved satisfaction with healthcare services.
- This case reinforces existing literature on use of telehealth support of HEP adherence.
- Limitations:
  - Periodic technical issues with the InHand™ app
  - Reliance on self-reporting by patient
- Future research is needed to:
  - Improve the implementation of mobile apps for HEP adherence support
  - Examine reliability of technology among various apps

**References:** See Handout with Reference List