

Functional Rehab Ecology: A Case Study

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As practitioners one of the most important questions that we must ask ourselves is “what is the difference that I am making?”. This question does not only pertain to the effects and results of the treatments that we provide, but extends to the assessment of the patient and the integration of the patient in the entire process.

As practitioners we often concentrate on the subjective and objective findings that we see. As practitioners will often fail to integrate the patient into the assessment and rehabilitation process in a symbiotic process. Assessment and rehabilitation must be a symbiotic and integrative process that enables the patient and the practitioner to mutually navigate through the process of functional restoration and rehabilitation. This process we call movement ecology.

The premise of movement and rehab ecology requires tools that engage both the practitioner and the patient. These tools must show visuals and data that show the progression through the rehabilitation process and extend the opportunities to engage the patient at a deeper level, all while respecting the efficiencies of the practitioner and clinic.

An example of how movement and rehab ecology encourages a deeper level of quality of care and clinical outcomes is represented in this case study...



The Case

A 37 year old female presented to my clinic with left shoulder adhesive capsulitis that had persisted over the course of 7 months. This patient was otherwise healthy and physically active and enjoyed weight training and running 4-5 times per week. Her inability to abduct and flex the shoulder had a substantial effect on her due to how these limitations affected her day to day activities and restricted her abilities to train and exercise. The patient was

recently placed on antidepressant medications by her physician due to the depression that she was experiencing from having to live with her “frozen shoulder”.

The patient explained how coming to my clinic was her last resort for her shoulder and that she had seen over 4 different physiotherapists and 3 different chiropractors as well as 2 corticosteroid injections with minimal improvement in pain relief or range of motion. It was apparent that a high level of frustration in her rehab had set into effect.

During the initial assessment our team put her in front of the Kinetisense 3D Motion Capture system and evaluated her shoulder range of motion. The system showed her range of motion to be 10 degrees of active abduction with pain at 7 degrees (8/10 VAS), 15 degrees of active shoulder flexion with pain at 10 degrees (8/10 VAS), 9 degrees of active shoulder extension with pain at 7 degrees (7/10 VAS), 8 degrees of active shoulder internal rotation with pain at 5 degrees (VAS 5/10) and 5 degrees of active shoulder external rotation with pain at 5 degrees (VAS 8/10).

After the initial assessment and the report of findings I started treatment to her shoulder which included Active release technique and Graston technique to the supraspinatus, subscapularis, teres major and minor and the anterior, middle and posterior deltoid. Chiropractic manipulation of the cervical spine, thoracic spine and scapulothoracic was done at each session.

After the treatment I reassessed the shoulder and found on average a 10 percent increase in pain free and overall active range of motion. I was able to show the patient the improvement through objective data and graphs. The patient was elated to see that the treatment had made a change.

We continued treating the shoulder and assessing her biomechanics with the Kinetisense system over the course of 6 weeks with two treatments per week. The patient was also prescribed home care exercises to increase her mobility and shoulder function.

The Outcome for the Patient

Over the course of the treatment plan the patient experienced improvement in her shoulder range of motion and became pain free with full shoulder mobility at 8 weeks. The patient was very pleased with her progress and credited the data that the Kinetisense Motion Capture system provided as a key element in her “sticking” to the prescribed treatment plan and the home care routine. Before her treatments at our clinic she admitted to shifting to different practitioners and clinics due to her frustrations in not seeing improvement. The Kinetisense system allowed her to see this changes and validate that the treatment plan and home care correctives were making a change. She noted that these small changes over the course of the 6 week treatment plan gave her a sense of hope and she became diligent in her compliance to the treatment plan.

Now this patient no longer has shoulder pain and is back to full activities. She has since been taken off of her antidepressant medications by her physician and is thriving. The patient has recently returned to my clinic to be assessed for her functional movement with the Kinetisense KAMS system and she is now concentrating on improving the overall biomechanics of her functional movement and training. Her next goal is to run a half marathon.

The Outcome for the Clinic

Implementing the Kinetisense system during the course of the assessment and rehabilitation process of this case had a great impact on our clinic. Kinetisense reports were sent to her physician and orthopedic surgeon on a weekly basis and showed the improvements that she was experiencing over the course of her treatment plan. Both the physician and orthopedic surgeon were impressed with these reports as they had never had quality updates such as this from other rehab practitioners.

The reports have become a multidisciplinary link between the chiropractor, physician and orthopedic surgeon. My clinic has since received over 15 referrals from these practitioners over the last month. This case demonstrates how Kinetisense was the differentiator that led to an increase in objectivity, efficiency, patient compliance and overall improved clinical outcomes. The Kinetisense system established the symbiotic relationship between the practitioners and the patient building a strong foundation for multidisciplinary rehab and movement ecology.

For more information on Kinetisense please visit our website at www.kinetisense.com or contact us at info@kinetisense.com