

Integrating Sport Psychology Services with Anterior Cruciate Ligament (ACL) Rehab Treatment with College Student- Athletes

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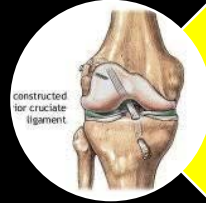
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Athletic Trainer, Loyola University Chicago

Agenda



Introductions



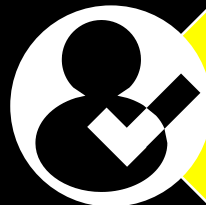
The Injury



Psychology of Sport Injury
& Recovery



Maintenance



Recommendations

Acknowledgement
Nia Johnson
Presentation Assistant

John

Short and long term care

Multi-disciplinary team
experience

Tailored interventions

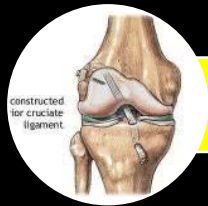
Inexperienced / experienced

2002-

Morgan

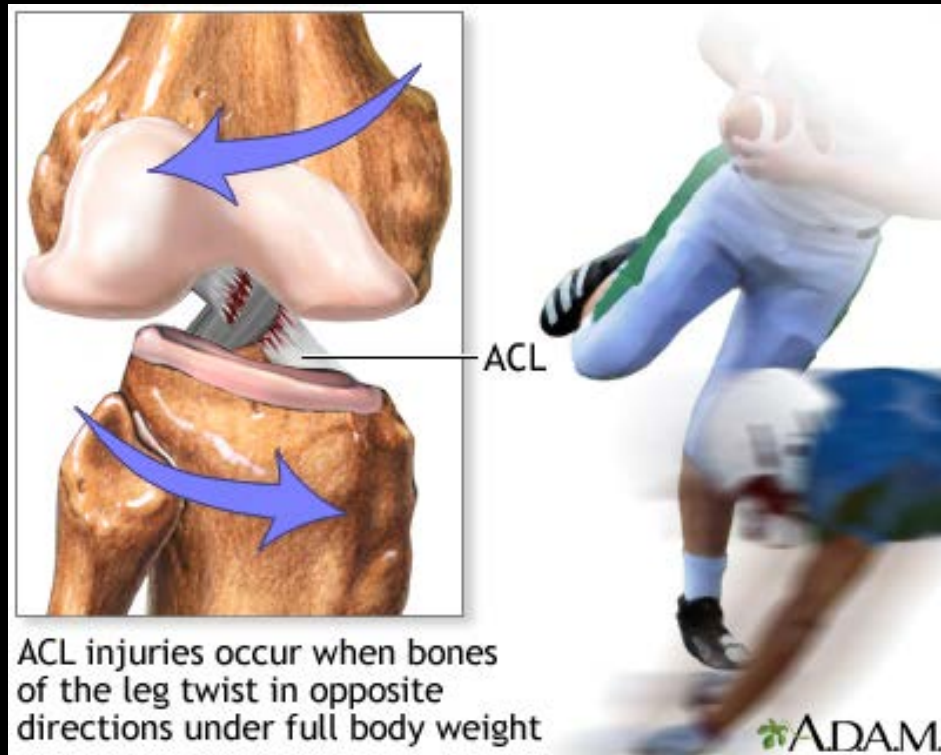
Daily care and interaction with
variety of athletes

Regular interaction with various
healthcare professionals

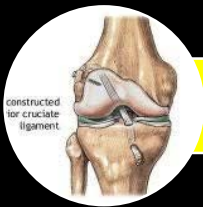


Introductions

3 ° ACL Sprain



- Excess tension applied to ACL, resulting in complete rupture of the ligament
- Common MOI's
 - Direct contact
 - Rotation of the knee
 - Hyperextension
- Initial Symptoms
 - “Pop” felt or heard
 - Knee “gives out”
 - Immediate pain
 - Visible swelling

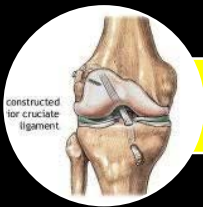


The Injury

Case Overview

Patient A:

- 18 y.o. female, D1 collegiate volleyball setter
- MOI: Valgus moment with tibial external rotation when jumping/landing while jump setting in match
- 3° L ACL Sprain, lateral femoral condyle bone bruise, mild fraying of posterior root of lateral meniscus
- 5 ½ weeks of prehab
- ACL repaired with DB semitendinosus-gracilis autograft, posterior root of lateral meniscus “lightly debrided”
- Full RTP at 8 months post-op.

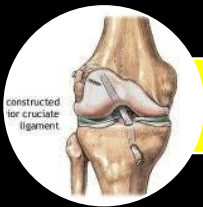


The Injury

Case Overview

Patient B

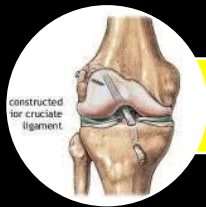
- 18 y.o. female, D1 collegiate volleyball setter
- MOI: Valgus moment with tibial external rotation when landing while jump setting in match
- 3° R ACL sprain, 1° MCL sprain, red-white zone tear of posterior horn of medial meniscus, posterior root flap tear of lateral meniscus, lateral tibial plateau and lateral femoral condyle bone bruises
- Immediate and prolonged effusion
- 6 weeks of prehab
- ACL repaired with DB semitendinosus-gracilis autograft, lateral meniscus debrided, medial meniscus repaired with 3 sutures
- Full RTP at 9 months post-op.



The Injury

Pre-Operative Treatment

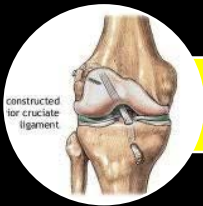
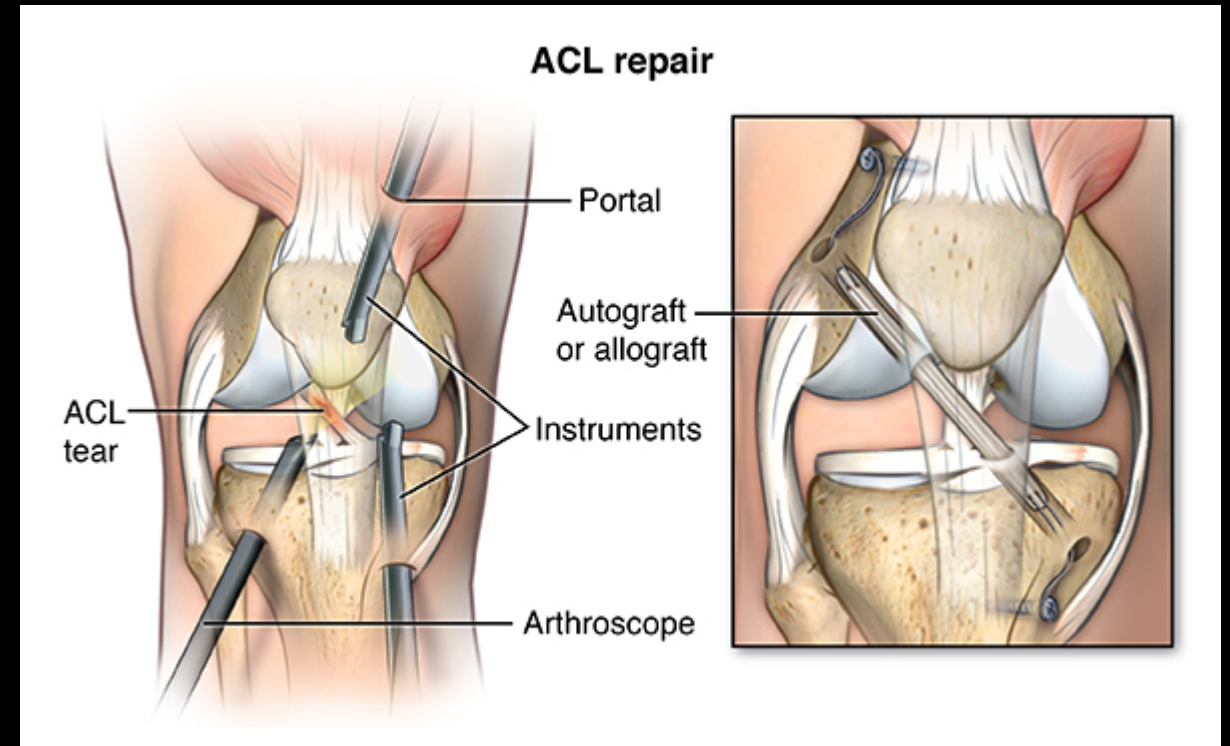
- Acute:
 - RICE, stabilization, pain management
- Treatment Goals:
 - Full ROM
 - Minimal or no effusion
 - No extension lag
 - Quadriceps, hamstring, gluteus, gastrocnemius, other core strengthening



The Injury

Surgical Repair

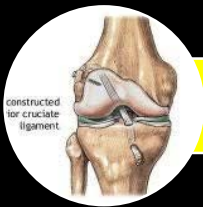
- Graft Choices
 - Hamstring Autograft/Allograft
 - Bone-Patellar Tendon-Bone Autograft/Allograft
 - Quadriceps Autograft/Allograft



The Injury

Post-Operative Treatment Goals:

- Neuromuscular and gait re-education
- Regain full ROM
- Strength and proprioception training
- Return to run
- Return to sport

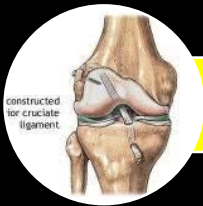
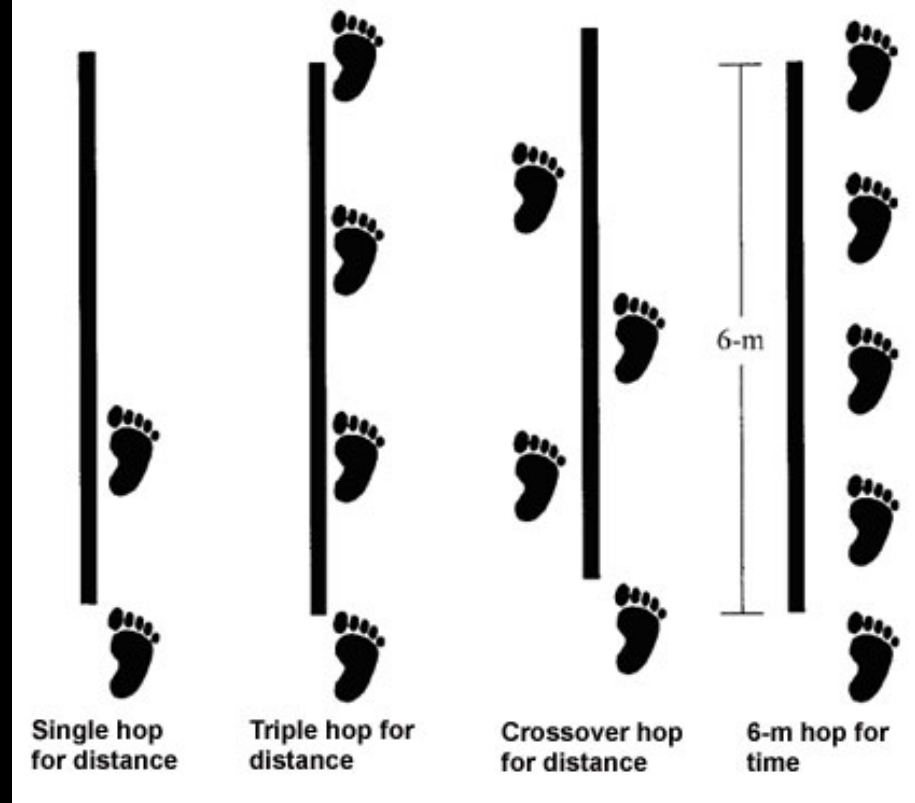


The Injury

RTP Criteria

- Full ROM
- Joint Stability
- No Effusion
- Girth Measurements
- SL Hop Tests

Lower Limb Symmetry Index (from Ross, Langford, and Whelan, 2002 (3))



The Injury

Sport Psychology

Working with Injured Athletes

Interdisciplinary Team Experience

Applied Interventions

Sport Injury Experience

Theory based approaches

Counseling Skills

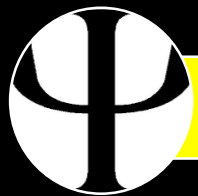
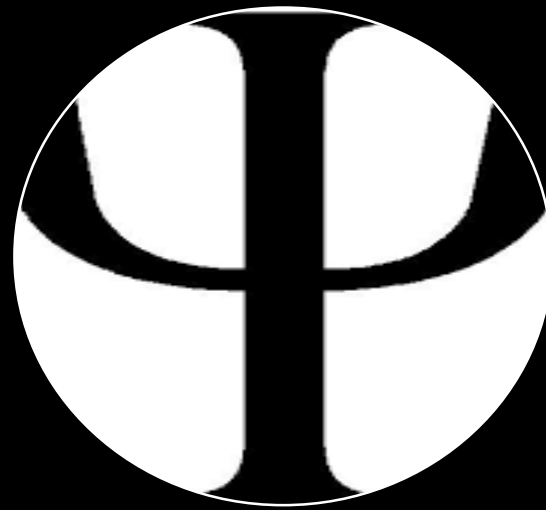
Sport Injury Rehab Protocols

Anatomy & Physiology

Biomechanics

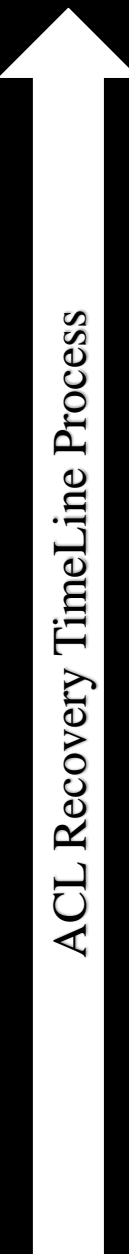
Sport knowledge

Strength and conditioning



Psychology of Sport Injury & Recovery

Time	Attendance	Physical Rehab	Psych. Skills Interventions	Sport Specific	Outcome Measures
1 Year Follow Up	Last follow up appointment	Slowly work up to preinjury level of sport participation	Performance Psychology Principles		Physical Rehab Measures 1. 4-Item Pain Intensity Measure (P4) 2. Range of Motion 3. Lower Extremity Functional Scale (LEFS) Adherence Measure 1. Sport Injury Rehabilitation Adherence Scale Psychological Rehab Measures 1. Nine Mental Skills Profile 2. Profile of Mood States 3. ERAIC
6 Month Follow Up		Cleared to return to sports Can begin agility and sport specific movement and game related drills	Mental Toughness Game Plan Development, Performance Imagery, Ratio Breathing, Thought Stopping,	Progressive sport specific training, game film, , performance profiling Case man. Mtg. 20 week	
			Mental Toughness Game Plan	Case man. Mtg. 16 week	
3 Month Follow Up	Cleared to run and swim	Increase running intensity Good Strength, close to complete range of motion	Healing Imagery, Short-Term Goal Setting Readjustment,	Game film, be around team, Case man. Mtg	
6 week follow up		Strength and range of motion exercises: bike & elliptical	Pain Imagery, Self-talk Reframing, S-T Goal Setting, Behavior modification, Stress Management	Watching training Team meetings Case man. Mtg	
2 week follow up	X-Ray	Stop using crutches Physiotherapy, strength and range of motion exercises	Performance Profiling, Athlete Recovery Education S-T Goal Setting, SMT Case Plan, Be Around Team, Pain Imagery	Coach meeting Case man. Mtg	
Day of surgery	Start physiotherapy	Go home and rest	S-T Goal Setting		



Psych. Skills Interventions

Performance Psychology Principles

Mental Toughness Game Plan Development, Performance Imagery, Ratio Breathing, Thought Stopping,

Mental Toughness Game Plan

Healing Imagery, Short-Term Goal Setting Readjustment,

Pain Imagery, Self-talk Reframing, S-T Goal Setting, Behavior modification, Stress Management

**Performance Profiling,
Athlete Recovery Education
S-T Goal Setting, SMT Case Plan,
Be Around Team, Pain Imagery**

S-T Goal Setting



Contextual Challenges

First 7-14 days

Absence of athlete education

Source of referral

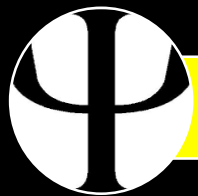
Sport administrative culture

Athlete awareness and experience
of sport psychology

Timing of injury

Coach commitment

Meeting location



Psychology of Sport Injury & Recovery

Relationship Challenges

Athlete's personal qualities

Athlete injury rehab experience

Athlete injury rehab experience

Connection and rapport

Athlete awareness and experience
of sport psychology



Psychology of Sport Injury & Recovery

Usual Circumstances

- Social isolation
- State anxiety
- Mood swings
- Self esteem
- Loss of confidence
- Distorted thinking
- Interpersonal conflict

Usual Goals



Anxiety



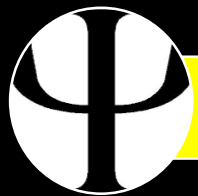
Mood



Confidence

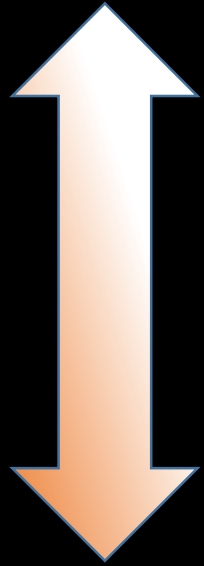


Social Support



Locus of Control

External Locus of Control



Internal Locus of Control

Cognitive Appraisal

Personal Factors

Situational Factors

Cognitive appraisal

Emotional Response

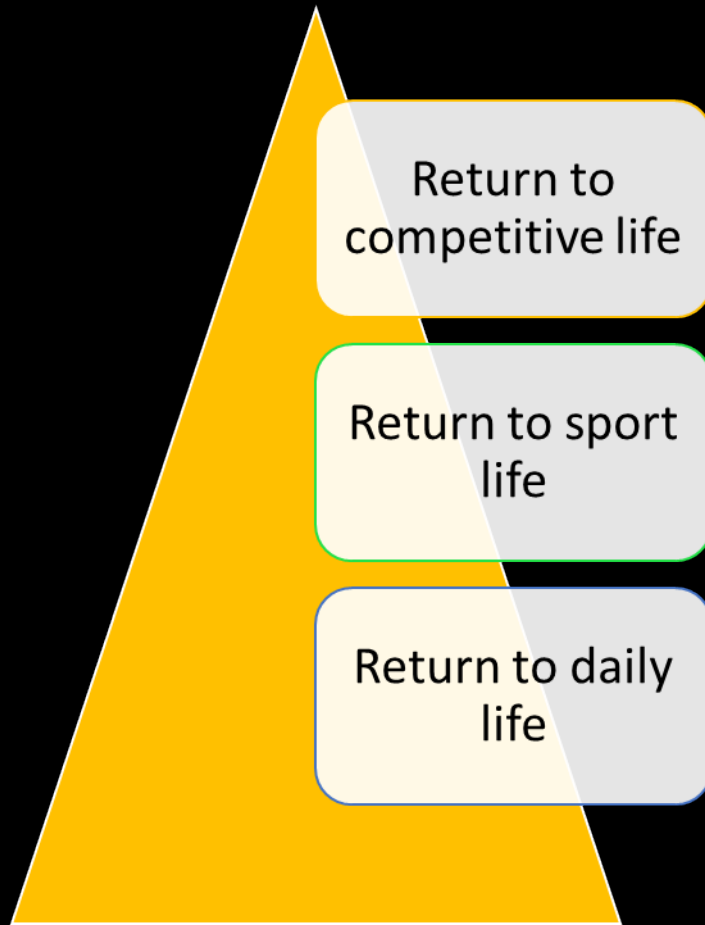
Behavioral Response

Recovery



Psychology of Sport Injury & Recovery

Interventions



Mental Game Plan

Awareness

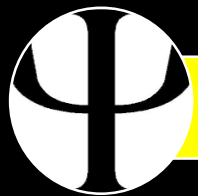
Education (Video)

Visualization

Problem solving/reframing

Movement Training

Group meeting



Psychology of Sport Injury & Recovery



Summer Program

- Regular, weekly check-ins
- Establish weekly goals
- Updated rehab profiles
- Communication with the PT's

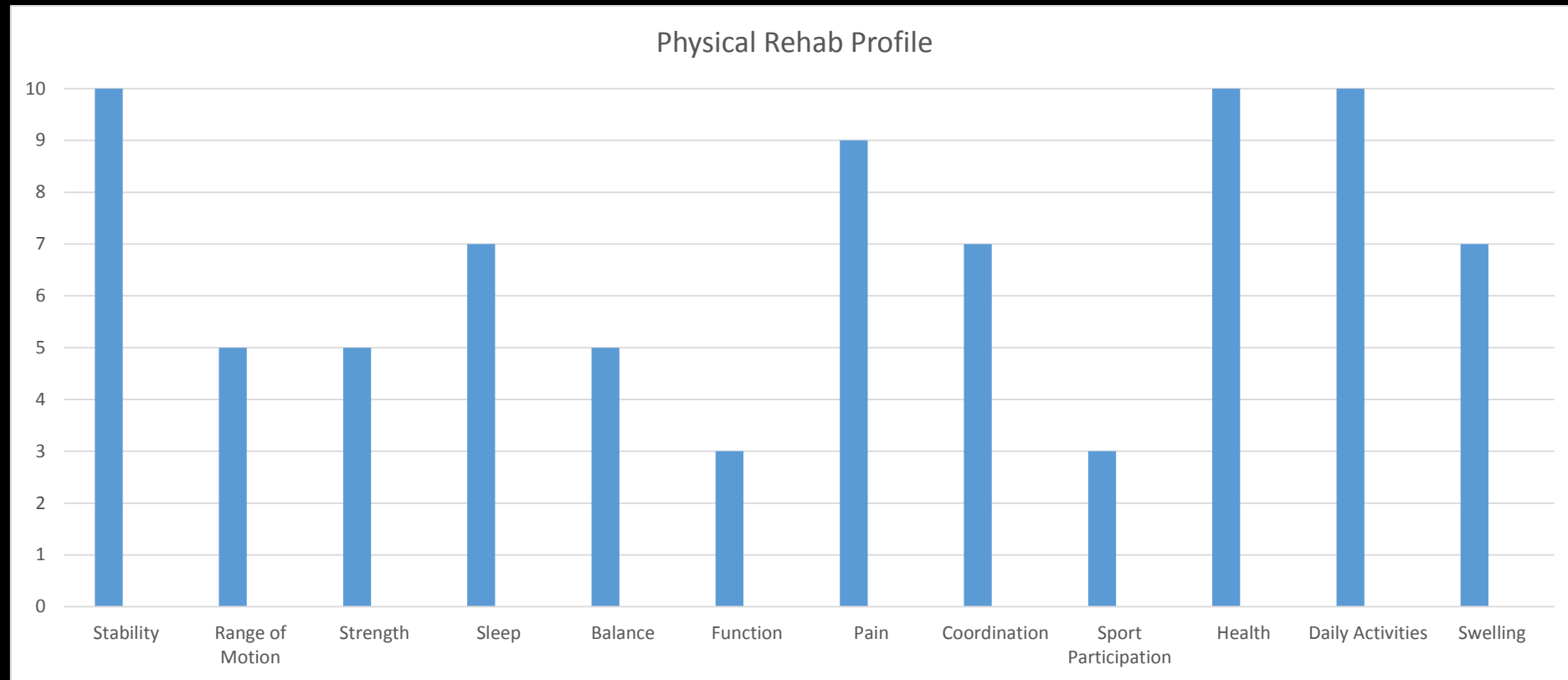
On Campus

- Implemented recommended activities into rehab
- Continue weekly goal-setting
- Progressive incorporation in practice drills
- Continued reassurance of the progress and process
- Discuss rehab profiles
- Communication with coaches regarding limitations and athlete apprehensions



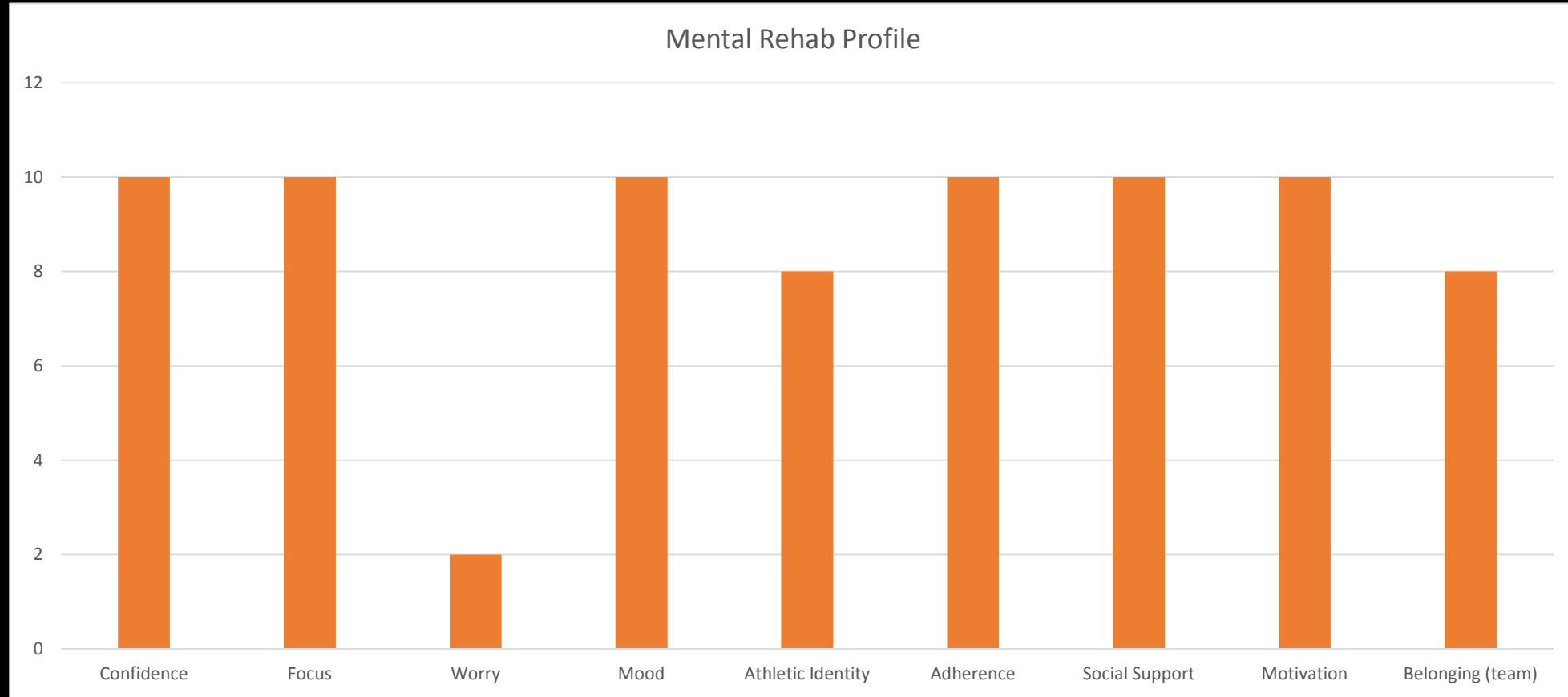
Maintenance

Rehab Profiles



Maintenance

Rehab Profiles



Maintenance



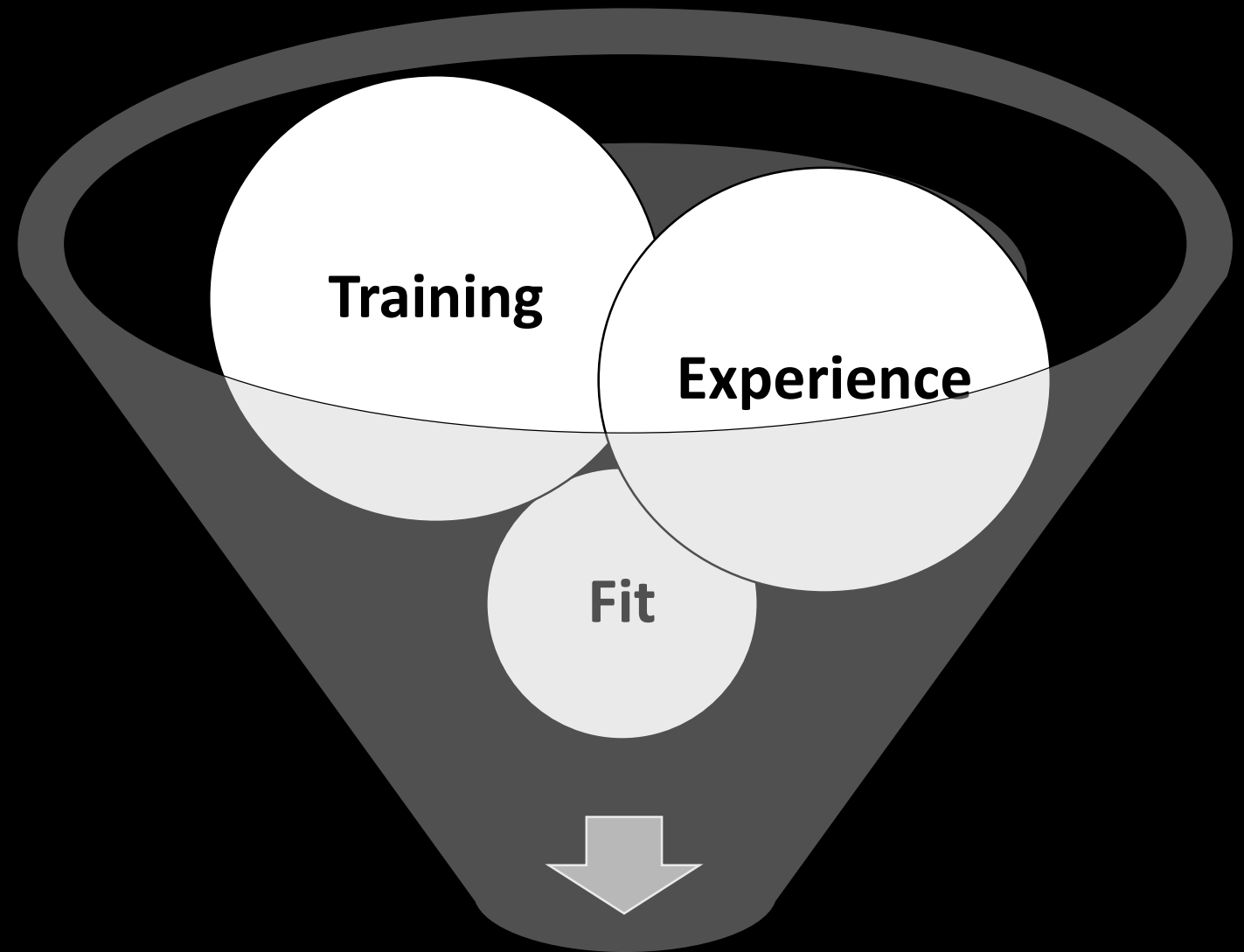
Implementation in the Athletic Training Room

- Dedicate specific time for psychological skills training
- Make use of rehab time
- Rehab profile check-ins
- Importance of goal-setting
- Regular communication
- Adopt a team approach
- Athlete ACL education
- Athlete involvement in decision making



Recommendations

- Recruit through your network
- Have a pre-existing relationship
- Work in the process
- Monitor the progress
- Value transparency



Recommendations

Effective consultation

Thank you for attending our session.

Questions?

Contact Morgan at: mmarinin@luc.edu

Contact John at: jcoumb1@uic.edu