

# Identifying Self-Efficacy in Anterior Cruciate Ligament Reconstruction Patients as a Component in Defining Knee Rehabilitation Compliance

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## Introduction

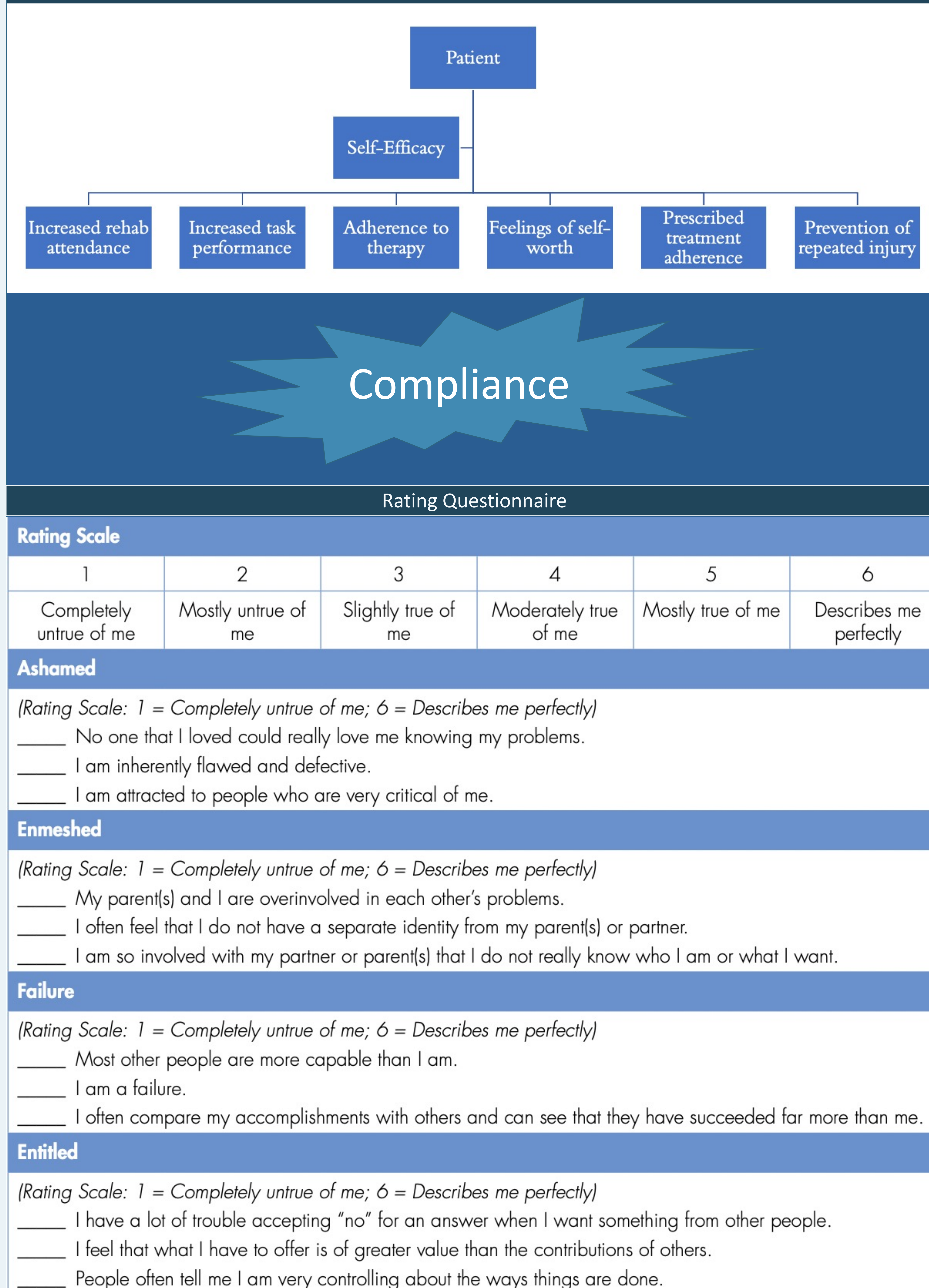
**Problem:** Patients who underwent anterior cruciate ligament reconstruction (ACLR) are not compliant with knee rehabilitation.

- Reasons:**
- Unclear definition of compliance
  - Inability to return to sport
  - Clinician and patient expectations of compliance are not defined

## Background

- Patients were identified in the Shoulder, Hip Arthroplasty, and Knee Surgery (SHARKS) registry
1. Lack of adherence due to many psychology factors, including fear-avoidance beliefs resulting in lack of self-efficacy <sup>[1]</sup>
  2. Existing criteria defining rehab compliance is attendance to sessions and self-reported knee functions and activity levels <sup>[2]</sup>
  3. Self-efficacy enables individuals to overcome fear-avoidance beliefs

Figure 1. VARK Framework sensory modalities which a learner prefers to receive information



## Methods

- A self-efficacy questionnaire 1-week post-surgery, week 3-4, week 5, week 10, month 3, month 4-5, and annually afterwards, according to ACLR Rehabilitation guidelines
- Patients will then be categorized to those with low self-efficacy and high self-efficacy on a scale from 0-100 with 100 being self-efficient.
- Patients who have not achieved maximum post-operative range of motion or the ability to return to sport with confidence will be identified.

## Discussion

- The addition of self-efficacy to a new model of care of increasing the compliance of ACLR patients in rehabilitation will help identify whether the patient will be able to achieve maximum post-operative range of motion or the ability to return to sport.
- In the case that self-efficacy does not interfere with rehabilitation compliance, this will help identify if the fear-avoidance beliefs of each patient is due to self-efficacy in their ability to adhere to treatment.
- Potential variables that may skew the data, include recall bias, subjective levels of maximum post-operative range of motion, and confounding health comorbidities.

## Reference

<sup>1</sup> Barckeb AR, Dlugoski D, Baez SE, Hoch MC, Hoch J. The relationship between injury-related fear and physical activity in people with a history of anterior cruciate ligament reconstruction [Internet]. Physical Therapy in Sport. Churchill Livingstone; 2021 [cited 2021Aug21]. Available from: <https://www.sciencedirect.com/science/article/pii/S1466853X21000912>

<sup>2</sup> Tuckerman K, Potts W, Ebrahimi M, Scholes C, Nelson M. Evolution of Service metrics and utilisation of Evidence-Based outcome measures in anterior cruciate ligament RECONSTRUCTION Rehabilitation: An Observational review of two cohorts in a public HOSPITAL physiotherapy department [Internet]. medRxiv. Cold Spring Harbor Laboratory Press; 2020 [cited 2021Aug21]. Available from: <https://www.medrxiv.org/content/10.1101/2020.03.26.20044032v1>