The effect of psychological (in)flexibility in anterior cruciate ligament reconstruction rehabilitation

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Background

- Changes in mood and substance use can occur after anterior cruciate ligament (ACL) repair.
- Identifying predictors of mood disturbance and maladaptive behaviour may assist during rehabilitation.
- Pain Catastrophizing is associated with mood and pain intensity post ACL surgery (Tripp et al., 2003).
- Acceptance is an important psychological concept in adjustment to chronic pain, and is associated with depression and disability (McCracken et al., 2004).
- No previous studies have investigated the association between Acceptance and outcomes in rehabilitation following ACL repair.

Aim

- To examine the relationship between both Acceptance and pain catastrophising as predictors of depression, pain intensity, and alcohol and substance use after ACL surgery.

Methods

Participants

- Patients (mean age 27 years, SD = 9.4 years) who have undergone ACL surgery, completed assessment within 2 weeks of ACL surgery (N = 44) and at 6 months post surgery (N = 26).
- The most frequent primary sports were Australian Rules Football (n=13; 29.5%); (n=8; 18.2%); and Basketball (n=6; 13.6%).

Measures

- Depression scale of the Depression, Anxiety and Stress Scale (DASS; Lovibond & Lovibond, 1995)
- Acceptance Action Questionnaire (AAG; Hayes et al., 2004)
- Pain Catastrophizing Scale (PCS; Sullivan et al., 1995)
- Numerical rating scale of pain intensity (NRS)
- The alcohol and substance use subscale of the Coping Orientations to the Problem Experience COPE (Carver, 1997).

Results

- Figure 1: Means and standard deviations of criterion measure at 2 weeks and 6 months after ACL surgery.

Conclusions

Main Findings

- Pain Catastrophizing was associated with pain intensity and affective disturbance at assessment, but not at 6 month follow-up.
- Acceptance was associated with Depression at 6 month follow-up.
- Acceptance was also associated with substance use at assessment, but not follow-up.

Implications

- Post ACL surgery, identification of patients who may respond poorly in rehabilitation may assist practitioners to provide early intervention psychological treatment.
- Psychological treatments that focus on Acceptance such as Acceptance and Commitment Therapy (ACT; Hayes et al., 2012) may have efficacy treating mood disturbance and behavioural dysfunction post ACL surgery.

Future Studies

- Controlled psychological treatment studies are required to test the efficacy of targeting Acceptance post ACL surgery. Further longitudinal studies are required to confirm findings in populations with other sport injuries.

References


