2 main areas in research on psychology of sport injury

Antecedents to injury

INJURY

Consequences of injury
- adjustment
- rehab behaviour
Aims of Session

- Examine responses to injury and why they occur
- Consider current theoretical models
- Identify evidence-based strategies to assist athletes in dealing with injury
Three types of responses to injury

1) Cognitive (thoughts) –
   - ‘That’s it – my season is over’

2) Affective (emotions)
   - Anger/ upset/ depressed

3) Behaviour
   - Effort in rehab/ Give up/ Do other things

(SKIER (Udry et al., 1997))
Significance of injury

‘I wouldn’t wish injury on anyone, but you don’t really know what the game’s all about until you’ve experienced it’

(Steve Backley)
1) Stage Models

- Relates to thought and feeling responses - adapted from models of grief/loss

- Key assumption:
  - Injury constitutes a loss of an aspect of self
  - Athletes’ responses will be sequential and follow a predictive pattern

- Grief Response is most common stage model in SP – based on Kubler-Ross’ (1969) book *On Death and Dying*
Kubler-Ross Model

Disbelief and Denial

Anger

Bargaining

Depression

Acceptance and Resignation
Problems with this model?

- Is it appropriate? Significant differences between terminal illness and injury
- Research suggests very little evidence of denial in athletes (e.g., Udry et al., 1997)
- Athletes’ don’t respond to injury in such a stereotypic manner (a lot of individual variation/fluctuations in emotions) (Brewer, 1994)
- Further research required
2) Cognitive Appraisal Models

- Response to injury is dependent on how we think about the injury
- Based on stress and coping models (Lazarus & Folkman, 1984)
Brewer’s (1994) Model of Response to Sport Injury

INJURY

Cognitive Appraisal
(interpretation of injury)

Emotional Response
(anger, depression etc)

Behavioural Response
(Coping/ rehab beh etc)

THINK

FEEL

DO
2 components to how we think about the injury

- **Primary appraisal:**
  - Is the injury a threat to my well-being and goal achievement?

- **Secondary appraisal:**
  - Do I have the resources to cope effectively with the injury?
1) I’ve sprained my ankle and it could stop me playing in the final championship game in only 3 weeks
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2) My team-mates and coach will help me stay involved, and I can work hard in rehab and get back asap.
2) That’s it! It’s all over – I know I can’t get back in 3 weeks.
Appraisal leads to…

1) Emotional response (FEEL):
   - LILLY = Positive attitude/outlook
   - BILLY = Frustration/anger/depression/fear

2) Behavioural response (DO):
   - LILLY = Compliance to rehab/high effort
   - BILLY = Lack of effort/withdrawal
Factors that influence cognitive appraisal

Personal Factors
- e.g., motivation/ confidence/ injury history/ pain tolerance

Cognitive Appraisal
- (interpretation of injury)

Emotional Response
- (anger, depression etc)

Behavioural Response
- (Coping/ rehab beh etc)

Situational Factors
- e.g., social support available/ stage of season/ rehab environment/ prognosis
Practical implications

- How the athlete **THINKS ABOUT** their injury is crucial

- Possible STRATEGIES:
  - Ask athlete about their perceptions of their injury
  - **Challenge** and **question** unhelpful thinking
    - Catastrophising
    - Unrealistic
    - Negative
    - Personalisation
  - Reinforce the role that thoughts play in successful rehab
  - Referral to psych?
Focus on behavioural responses

- How an athlete thinks and feels about an injury and/or rehab will influence behaviour
- Focus on rehabilitation compliance
Defining compliance

- **Compliance** = extent to which athletes follow recommended rehabilitation behaviour
- Over-compliance and under-compliance
Is compliance an issue?

- Current estimates of compliance:
  - range from 40 – 91% (Brewer, 1998)
  - ↓ Length of rehab program
  - ↓ Home-based

- In survey of UK physiotherapists good compliance was associated with coping well with injury (Hemmings & Povey, 2002)
How do we measure compliance?

- Attendance
- Self-report of completion of home-based activities (diary)
- Practitioners’ observation or estimate of home/hospital adherence
What factors effect compliance?

- **Personal factors:**
  - Self-motivation
  - Pain tolerance
  - Toughmindedness (assertive/independent/self-assured)
  - Trait anxiety (-vely)

- **Situational factors:**
  - Belief in efficacy of treatment
  - Perceived support during rehab
  - Convenience of rehab scheduling
But need a theoretical framework

- Current study based on **Theory of Planned Behaviour** (Ajzen, 1985, 1991)
  - With Musgrave Park – ACL rehab behaviour
  - With SINI – range of injuries (min 6-week rehab period)

- Identify what factors are most influential in predicting rehab behaviour and then target these to increase compliance
Adherence
Behaviour
Over 8 Weeks

Intention
Intention immediate determinant of behaviour

- ‘I intend to follow the recommended rehab programme in next 8 weeks’
Attitude Towards Following Rehab Prog → Intention → Adherence Behaviour Over 8 Weeks
**Attitude**

- Person’s overall evaluation of performing the behaviour in question
- ‘For me to follow the recommended rehabilitation programme in the following 8 weeks would be’
  - unimportant-important
  - useless-useful
  - harmful-beneficial
  - enjoyable-unenjoyable
Influencing attitudes – Practical strategies

**SOURCE:**
(physio & coach)
credible/ trustworthy/ attractive

**MESSAGE:**
unambiguous/ supported with evidence/ fear-inducing?

**Persuasive communication:**
Highlight importance of compliance
Influencing attitudes – Practical strategies

- **MODELLING** - We form attitudes by observing the consequences of other’s behaviour
- Use role models who have successfully completed rehab—
  - e.g.:
  - Beckham
  - Team-mates
  - Support groups
Perceived control

**Attitude**
Towards Following Rehab Prog

Intention

Adherence Behaviour Over 8 Weeks
Perceived control

- Is it under my control whether I carry out the rehab programme or not?

- ‘It is mostly up to me whether I follow the prescribed rehabilitation programme for the next 8 weeks’

- What factors could influence control?
- Practical implications/ strategies?
Influencing PC - Practical strategies

- Assist in removing barriers to successful completion of rehabilitation

- E.G.,
  - Scheduling times/ places etc
  - ??
Adherence Behaviour Over 8 Weeks

Perceived control

Attitude
Towards Following Rehab Prog

Self-confidence

Intention
Self-confidence

- Behaviour may be under athletes control but how confident is the athlete that they have the ability to complete the rehab programme

- ‘I believe I have the ability to complete the recommended rehabilitation programme for the next 8 weeks’

- Factors that could influence self-confidence?
Influencing self-confidence - Practical strategies

- Build upon previous success
  - goal setting
  - diary
- Modelling
- Persuasive communication
  - From others and self
Adherence Behaviour Over 8 Weeks

Perceived control

Attitude TowardsFollowing Rehab Prog

Social Pressures

Intention

Self-confidence
Social pressures

- Social pressures relates to an individual's perception of the pressures put on him/her by important others to perform or not perform the behaviour

- ‘People who are important to me, want me to follow the recommended rehabilitation programme for the next 8 weeks’
Influencing subjective norm - Practical strategies

- Incorporate significant others into consultation process?

- ??
Call for volunteers

- Additional aspect of the TPB study

- Interview physios on what you think influences compliance behaviour

- Approx 1 hour interview at place of your convenience

- Please fill in form and leave your details
Summary

- Athletes’ responses to injury include cognitive, affective and behavioural responses.
- Stage models and cognitive appraisal models help make sense of cognitive and affective responses.
- TPB could be a useful framework for investigating and increasing compliance behaviour.
Game over