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# Bringing Sport Psychology into Physiotherapy

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# Bringing Sport Psychology into Physiotherapy

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Life-changing Learning

## Background

"Psychology is a really important part of sports injury rehabilitation"

"I don't really integrate much sport psychology into my practice"

"I need more training in sport psychology"



- Gap between knowing and doing evident
- Is a lack of training and education a barrier to sports injury rehabilitation professionals (e.g. physiotherapists) integrating more sport psychology into their work?
- Programme of research to investigate this question

## The Study

**Purpose:**

- To measure the impact of an online sport psychology education module on the sport psychology related attitudes and behaviours of qualified sports physiotherapists in the UK

**Previous research:**

- Limited previous research directly measuring the impact of a sport psychology education intervention (e.g. Clement & Shannon, 2009; Stiller-Ostrowski et al., 2009)
- The existing research exclusively examines US athletic trainer populations (predominantly student populations)
- These studies typically have relatively short follow-up periods
- Key gaps:
  - UK professionals
  - Those already qualified
  - Longitudinal impact
  - Distance learning



## Method

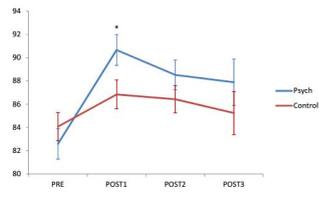
- 95 physiotherapists working in sport
- Intervention group
  - 23 males & 21 females
  - Mean age = 33.70 years (SD = 8.16)
  - Studied an online module titled 'Sport psychology for physiotherapists'
  - Module content (as recommended by Heaney et al., 2015):
    - understanding the psychological impact of injury
    - interventions and psychological skills/techniques
    - referral and professional boundaries
- Control group
  - 26 males & 25 females
  - Mean age = 36.11 years (SD = 8.78)
  - Studied an online module titled 'Strength & conditioning for physiotherapists'
- Both modules were split into three units requiring approximately 12 hours of study spread over 3 weeks (1 unit per week)

## Method

- Online questionnaire package completed 4 times:
  - Pre-study
  - Immediately post-study
  - Three months post-study
  - Six months post-study
- Questionnaire package measured:
  - Attitudes toward sport psychology
    - Attitudes about imagery survey (AAIS, Hamson-Utley et al., 2008) – 6 subscales (communication, social support, motivation, attentiveness, relationship & sport psychology)
    - Sport psychology related behaviour (use of sport psychology related strategies)
      - Psychology of injury usage survey (PIUS, Stiller-Ostrowski et al., 2009) – 4 subscales (imagery, positive self-talk, goal-setting and pain tolerance)
      - Perceived use of sport psychology
    - Sport psychologist referral
    - Perceptions of module (rating, likes/dislikes)
    - Motivation for further study
- Module engagement was also measured
  - Completion of module assessments (1 per unit)
  - Participation in module forum (embedded within module activities)

## Findings - Attitude

- Hypothesis = There will be a significant difference in physiotherapists' attitudes towards sport psychology before and after (immediately, three-months and six-months) studying a sport psychology education module
  - Accepted - AAIS total scores changed significantly over time for those who studied the sport psychology module
- Hypothesis = There will be a significant difference in attitudes towards sport psychology between the control group and the intervention group
  - Accepted - physiotherapists in the intervention group demonstrated significantly higher attitude towards sport psychology (AAIS total) scores than physiotherapists in the control group immediately following the completion of the module



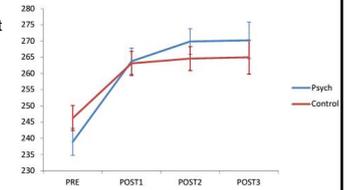
Time Point	Psych (AAIS Total)	Control (AAIS Total)
PRE	~83	~83
POST1	~91*	~87
POST2	~89	~86
POST3	~88	~85

## Findings - Attitude

- A 2 x 4 (group x time) ANOVA conducted on the AAIS total score data revealed:
  - no significant main effect for group ( $F = 1.238, p = 0.269, \text{partial } \eta^2 = 0.013$ )
  - significant main effect for time ( $F(3, 91) = 12.210, p < 0.001, \text{partial } \eta^2 = 0.287$ )
  - significant interaction between time and group ( $F(3, 91) = 2.832, p = 0.043, \text{partial } \eta^2 = 0.085$ )
- Follow-up significant effect analyses revealed:
  - AAIS total scores changed significantly over time for the intervention (sport psychology) group ( $F(3,279) = 9.71, p < 0.001$ ), but not for the control group ( $F(3,279) = 1.49, p = 0.218$ )
  - There was a significant difference between the two groups immediately following the completion of the modules (POST1) ( $F(1,93) = 4.44, p = 0.038$ )
- 2 x 4 ANOVAs conducted on each of the subscales revealed significant interactions between group and time on the 'imagery' and 'self-talk' subscales, but not on the 'goal-setting' and 'pain tolerance' subscales
  - Physiotherapists more familiar with motivational strategies such as goal-setting so less room for improvement?

## Findings - Behaviour (usage)

- Hypothesis = There will be a significant difference in physiotherapists' sport psychology related behaviours before and after (immediately, three-months and six-months) studying a sport psychology education module.
  - Accepted – PIUS total scores changed significantly over time for the physiotherapists who studied the sport psychology module
  - In contrast to attitude scores PIUS scores increased at each data collection point – possibly indicative of a period of assimilation being required to absorb the information and gain confidence in applying it in their practice
- Hypothesis = There will be a significant difference in sport psychology related behaviours between the control group and the intervention group
  - Rejected – although the intervention group showed greater levels of improvement than the control group they were not statistically significant
  - Control group exposed to sport psychology through the questionnaire?
  - High basal scores?
  - However, significant differences were seen between the groups on the sport psychology subscale
    - possible ceiling effect on the other subscales which were more familiar (e.g. motivation)
    - module content most strongly related to this subscales

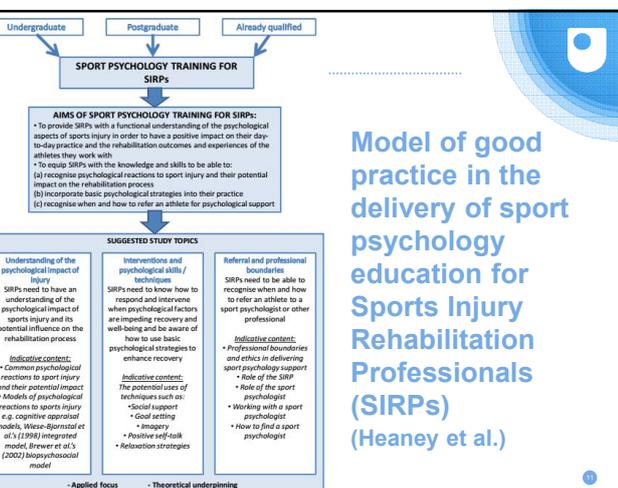


## Findings - Behaviour (usage)

- A 2 x 4 (group x time) ANOVA conducted on the PIUS total score data revealed:
  - No significant interaction between time and group ( $F(3, 91) = 1.831, p = 0.147, \text{partial } \eta^2 = 0.057$ )
  - No significant main effect for group ( $F = 0.036, p = 0.850, \text{partial } \eta^2 < 0.001$ )
  - A significant main effect for time ( $F(3, 91) = 34.193, p < 0.001, \text{partial } \eta^2 = 0.530$ )
- A 2 x 4 ANOVA conducted on the 'sport psychology' subscale revealed:
  - A significant interaction between time and group ( $F(3, 91) = 5.256, p = 0.002, \text{partial } \eta^2 = 0.148$ )
  - No significant main effect for group ( $F = 1.592, p = 0.210, \text{partial } \eta^2 = 0.017$ )
  - A significant main effect for time ( $F(3, 91) = 48.874, p < 0.001, \text{partial } \eta^2 = 0.617$ )
- Follow-up significant effect analyses revealed:
  - PIUS sport psychology subscale scores changed significantly over time for both the intervention group ( $F(3,279) = 57.80, p < 0.001$ ) and the control group ( $F(3,279) = 19.68, p < 0.001$ )
  - Of the four data collection points there was a significant difference between the two groups at one point – three months after the completion of the modules (POST2) ( $F(1,93) = 6.83, p = 0.010$ )

## Conclusions

- An online sport psychology education module can have a positive impact on the attitudes and behaviour of qualified physiotherapists working in sport
- Physiotherapists can offer basic 'frontline' sport psychology support, supported by referral to a sport psychologist
- No CPD opportunities addressing the psychological aspects of sports injury are currently available to qualified physiotherapists in the UK
- Such CPD opportunities are needed to help injured athletes access the sport psychology support they need to cope with injury
- A model of good practice in the integration of sport psychology education into physiotherapy is needed (see next slide)



## Thank you for listening...

### Any questions?

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