

Using Evidence to Inform the Development of a Concussion Education Programme for Youth Gaelic Games Athletes and Coaches

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Overview of Presentation

- What is a concussion?
- Framing the problem
- Coaches and concussion identification and management
- Development of a concussion education programme
 - Review of the existing literature
 - Examination of knowledge
 - Needs assessment
 - Pilot testing
- Engagement of key stakeholders
- Conclusions & future Work



Aims

1. To assess self-reported prevalence of concussion among U16 inter-county GAA players in Connacht, Ireland
2. To examine self-reported knowledge, attitudes, subjective norms, perceived behavioural control, concussion reporting intention, and concussion reporting behaviours among youth GAA players and GAA coaches in Connacht, Ireland
3. To develop and implement a theory-based concussion education programme and evaluate its' immediate and long-term impact

What is concussion?

- A type of traumatic brain injury that changes the way the brain normally works
- It is caused by a bump to the head or blow to the body that causes the head to move rapidly back and forth
- Even a 'ding', 'getting your bell rung', or what seems to be a mild bump or blow to the head can be serious.

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Prevalence

- Annually, it is estimated that 3.8 million sports- and recreational related concussions are sustained in the USA alone
 - 20% of which are obtained by secondary school-aged athletes
 - Rates may actually be higher, as concussions commonly go unreported
- Recognition and proper response to concussions when they first occur can help prevent further injury, and may minimise the acute and long-term health consequences of this injury.



Concussion & the GAA

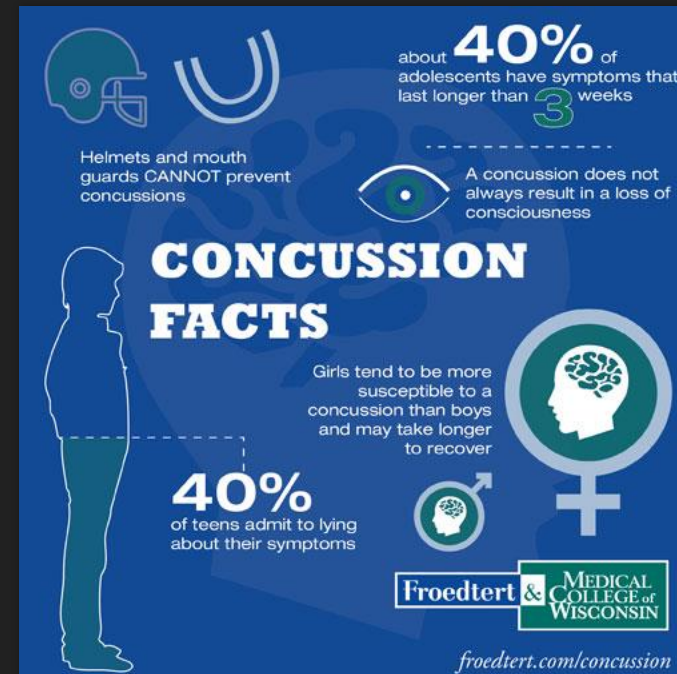


Concussion & the GAA

- GPA and ABI Ireland Study (2012)
 - 54% of those surveyed said that they have sustained a concussion
 - A majority of participants reported that they have sustained 2-5 concussions in their athletic career
 - One-in-four participants continued to play while knowingly concussed, 42% of which did not remember the remainder of the game
- Both athletes and coaches lack a complete understanding of concussion, highlighting a need for concussion awareness and education
- Knowledge + safe attitudes ≠ concussion reporting behaviours

Concussion & Young Athletes

- 20% of concussions are sustained by youth athletes, whose brains are still developing
- More susceptible to concussion
- Take longer to recover from concussion
- More prone to long-term health consequences
- Lack of medical personnel at games, especially at the grass-roots level



Coaches & Concussion Management

- At many youth sporting events, there are no medical professionals present to look after injuries, so a lot of the responsibility falls on coaches
- A coach's job is not to diagnose a concussion, but rather to recognise a possible concussion, and then remove an athlete from play and refer them to a health professional
- Coaches should strive to create an environment for their athletes that support concussion reporting and encourage athletes to take the proper time to recover from the injury

Review of the Existing Literature

- Culture shift needed to preserve the game
- Concussion education programmes have been found to be largely ineffective long-term, and should focus on cognitions other than knowledge alone (e.g. attitudes and communication practices)
- Theory should be incorporated into programme design, implementation, and evaluation
- Interventions that challenge sports cultural norms such as 'win at all costs' and 'play while injured' must be implemented
- Future interventions should be multi-dimensional in order to incorporate the many facets that may increase disclosure of concussion

Development of the Programme

- 1) Examination of knowledge
- 2) Engagement of key stakeholders
- 3) Needs assessment survey
- 4) Development of education programme



Phase 1: Examination of Knowledge

- Coaches lack a complete understanding of concussion, as several knowledge gaps and misconceptions about concussion prevailed
 - Concussion signs and symptoms
 - 25% of coaches correctly identified that a direct hit to the head is not needed for an athlete to sustain a concussion
 - Only one-in-three coaches indicated that after an athlete sustains one concussion they are at increased for another concussion
 - 25% of participants incorrectly indicated that brains scans show visible damage post-concussion
- Overall, coaches held safe attitudes towards concussion and concussion safety

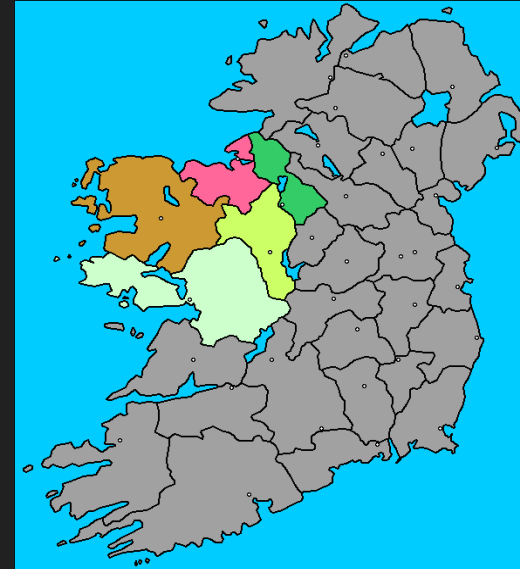
Phase 2: Engagement of Key Stakeholders

- People invested in the programme, interested in the results of the evaluation, and/or with a stake in what will be done with the results of the evaluation
- Representing their needs and interests throughout the process is fundamental to good program development
- Engaging key stakeholders makes research more relevant, easier to conduct, and more likely to be implemented



Phase 2: Engagement of Key Stakeholders

- Identification of key stakeholders
- Rationale for their involvement
- Role of key stakeholders
- Barriers and challenges to stakeholder engagement



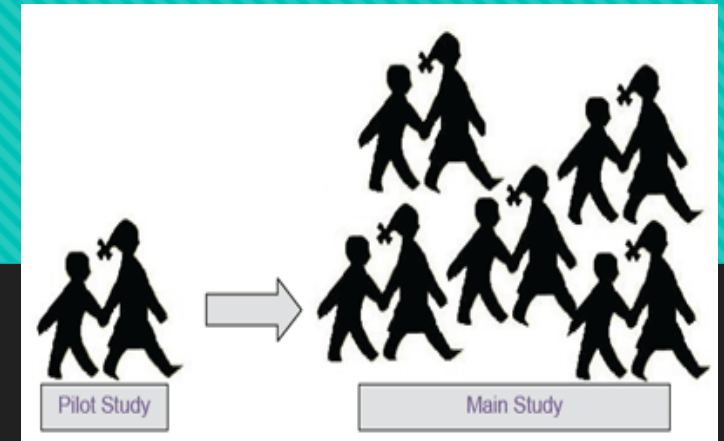
Phase 3: Needs Assessment

- 27.8% of coaches reported being formally educated about concussion
- Self-reported informational needs and desires
 - Signs and symptoms of concussion (69.4%)
 - Assessment of concussion (63.9%)
 - Return-to-play guidelines (63.9%)
- Methods of delivery
 - Over two-thirds of participants indicated that in-person training would be 'most effective'
- Practices and procedures
 - Utilisation of concussion education materials
 - Concussion training and management within clubs
 - Communication practices
- Identified perceived barriers

Phase 4: Pilot Testing

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- Content of the intervention
- Timing
- Language used on the survey instruments
- Cultural appropriateness
- Suggestions for programme improvement



The Programme

- Focuses on the:
 - Signs and symptoms of concussion
 - Assessment and management of concussion
 - Short- and long-term health consequences of concussion
 - Return-to-play guidelines
- Includes video, discussion, and interactive demonstrations
- Informed by the most up-to-date consensus statement on concussion in sport and research
- Based on the Theory of Planned Behaviour and incorporates Behaviour Change Techniques (BCTs) into programme design and development
- Encourages coaches to communicate to their athletes about concussion and provides them with strategies on how to do so

Conclusions & Future Work^b

- Involving key stakeholders in the development, implementation, and evaluation of an educational programme may increase buy-in from the target population
- Future work will evaluate the effectiveness of this intervention using a cluster randomised control trial
 - Assessments will be carried out at three time points
 - Process evaluation
 - Impact evaluation
 - Outcome evaluation
 - Anticipated challenges



Thank you!

- Irish Research Council (IRC)
- Dr Michal Molcho
- My Graduate Research Committee
 - Dr Margaret Hodgins
 - Dr Colette Kelly
 - Dr Agnes Shiel
- GAA
- LGFA
- The Camogie Association
- The Health Promotion Research Centre, NUI Galway

Any Questions?

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