

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Epidemiology of injuries in Hurling: a prospective study 2007-2011
AUTHORS	Blake, Catherine; Murphy, John; O'Malley, Edwenia; Gissane, Conor

VERSION 1 - REVIEW

REVIEWER	DR MUHAMMAD IRFAN KHAN, FRCOphth CONSULTANT OPHTHALMOLOGIST STEPPING HILL HOSPITAL, STOCKPORT, UNITED KINGDOM.
REVIEW RETURNED	30-Mar-2014

GENERAL COMMENTS	<p>A good synthesis study appraising the evidence from over a period of years from all regions in Ireland. It will be useful shedding a little light on What Injury prevention model is. There is no Subclassification of Head and Neck injuries as like fracture of a Jaw will have very different consequences from fracture of cervical spine and ocular injuries Since 2010 after the use of mandatory protective gear, has there been any change in rate of injuries sustained. What do you hope to accomplish by measuring this data ? Where there any players who refused to share their data regarding injury if yes how many ? It is very interesting to see the comparison between the injury rate in Hurling and Bandy.</p> <p>It is a well written paper but may be worth elaborating on the points mentioned above.</p>
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REVIEWER	Martin Mc Intyre SISM, Ireland
REVIEW RETURNED	17-Apr-2014

GENERAL COMMENTS	<p>There is a large difference between incidence of injury during training Vs match time as detailed below ; Training injury 362 35.1 2.99 Match injury 586 56.9 61.75 I would suggest 1. Identify this trend and provide some extra discussion in relation to the training and comparison between Hurling and Gaelic football in light of the large risk of injury during match play in Hurling. 2. Large variance in data between Training (121119) hrs vs Match (9490.50), will analysing a greater number of games affect the risk ratio or distort/affect this trend ?</p>
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VERSION 1 – AUTHOR RESPONSE

Reviewer 1:

It will be useful shedding a little light on what the injury prevention model is.

The following text has been inserted into the background

"These models define epidemiological research as the first step in injury prevention, allowing quantification of injury and associated risk factors. This then provides a platform for development, implementation and evaluation of injury prevention interventions, both in the context of controlled research and real-world sport environments".

There is no subclassification of head and neck injuries; as fracture of a jaw will have very different consequences from fracture of cervical spine and ocular injuries. Since 2010 after the use of mandatory protective gear, has there been any change in rate of injuries sustained?

We chose not to report this level of detail here, since the total injury numbers are relatively small and so we plan to collate further data from 2012-2014 into a report on head, neck and facial injury in both hurling and Gaelic football. The following has been added into the text to explain this. Further data collection over additional seasons is planned to allow systematic evaluation of subtypes of head injury and trends over time. However it is of note that no ocular injury was recorded in this elite cohort since the introduction of mandatory helmets with faceguards in 2010.

What do you hope to accomplish by measuring this data?

This is partly explained by the elaboration on the injury prevention models in the introduction as explained above. The text in the final sentence of the conclusions has also been amended to read;

"Ongoing injury surveillance, as described here, provides a platform to identify predictive factors and vulnerable subgroups of players, along with capacity to monitor changing trends in injury and to evaluate the effects of injury-prevention interventions".

Where there any players who refused to share their data regarding injury if yes how many ?
No player declined to allow their anonymised data contribute to the team reports. This has been included in the results.

Reviewer: 2

There is a large difference between incidence of injury during training Vs match time as detailed below ;

Training injury n=362, 35.1%, 2.99/1000h: Match injury n=586, 56.9%, 61.75/1000h

I would suggest

Identify this trend and provide some extra discussion in relation to the training and comparison between Hurling and Gaelic football in light of the large risk of injury during match play in Hurling.

The text has been augmented in the discussion to read as follows:

This excess risk of injury from match play is commonly seen in field sports, including Gaelic football (61.86/1000h match v 4.05/1000h training)[10], and soccer (26.6/1000h match v 4.0/1000h training) [19], reflecting the intensity of competition. However, it is notable that hurling demonstrates the

highest relative risk of injury for matches versus training, amongst these sports.

Large variance in data between Training (121119) hrs vs Match (9490.50), will analysing a greater number of games affect the risk ratio or distort/affect this trend ?

This is a good point and can be looked at in a number of ways.

i. The incidence rates used in the ratio are calculated independently of each other per 1000 hours exposure to training or match play. This means that injury rate from each game is standardised, so the inclusion of more games will not bias the estimate of the overall rate. This similarly applies for the training incidence rate, with respect to the number of training sessions. In this way, the ratio of match to training injury should not be distorted.

ii. Looking at this then from the perspective of the structure of the hurling competition, where teams have varying intervals between games and may have different numbers of games in a set time period. The time interval for data collection from each team was determined by the duration that the team remained in the competition rather than specifying a set number of weeks or months. In this way, although some teams exited the study earlier than others, the relative exposure to training and match activity was comparable across teams, i.e. once games ceased, then we stopped collecting training information. The use of the standardised incidence rates is important here as well.