



## Harry Potter casts a spell on accident prone children

Stephen Gwilym, Dominic P J Howard, Nev Davies and Keith Willett

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## Summary points

Trichotillomania is an “impulse-control disorder” in humans, characterised by repetitive stereotypical hair pulling from different areas

Barbering in mice can serve as an animal model of trichotillomania

Mice homozygous for a loss of function mutation in Hoxb8 gene (involved in grooming behaviour) display clinical signs of trichotillomania

Studies are needed to see if people with trichotillomania have the same mutation and whether prescription drugs that ameliorate trichotillomania can cut back grooming in Hoxb8 mice

and human pathologies are similar. Trichotillomania may arise as a result of the misregulation of an innate self grooming behaviour that results in excessive repetition. It would be interesting to find out whether subsets of human patients with trichotillomania have defects in the Hoxb8 gene or in the paralogous family members Hoxc8 and Hoxd8.

We thank Judith A James for supplying the mice shown in the photograph and Yaser Dorri for his help with the photography.

Contributors: Animal immunisation studies were carried out by BTK and RHS with TG's assistance. The manuscript was written by BTK and approved by RHS and TG.

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Ethical approval: The animal immunisation experiments described in the manuscript were approved by the Institutional Review Board.

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## Harry Potter casts a spell on accident prone children

Stephen Gwilym, Dominic P J Howard, Nev Davies, Keith Willett

In the infancy of this millennium two things are certain: children injure themselves on the latest “craze” and children will (probably) read the Harry Potter books. Previous reports have highlighted the impact of emerging crazes such as inline skating and microscooters, with attention being drawn to potential accident prevention and emerging patterns of injury.

One modern craze is the Harry Potter series of books and films. In the United Kingdom sales of the latest Harry Potter book, *The Half-Blood Prince*, are estimated to reach four million, with around three million volumes being sold in the first week.

Given the lack of horizontal velocity, height, wheels, or sharp edges associated with this particular craze we were interested to investigate the impact the Harry Potter books had on children's traumatic injuries during the peak of their use.

## Methods and results

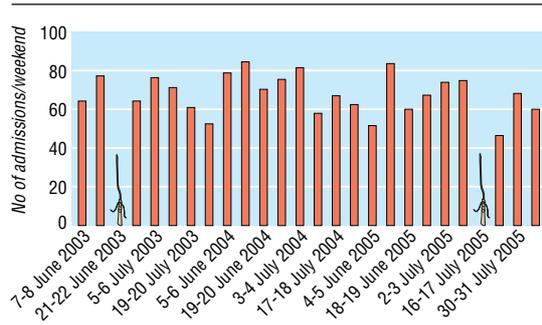
We undertook a retrospective review of all children aged 7-15 who attended our emergency department with musculoskeletal injuries over the summer months of a three year period. Weekend admissions were counted as those occurring between 8 am on Saturday and 8 am on Monday. The age range was based on that of reading competence on the advice of an educationalist.

The launch dates of the two most recent Harry Potter books—*The Order of the Phoenix*<sup>1</sup> and *The Half-Blood Prince*<sup>2</sup>—were Saturday 21 June 2003 and Saturday 16 July 2005. We compared the numbers of admissions for these weekends with those for surrounding summer weekends and those dates in previous years.

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Note: Firebolt brooms indicate the two weekends when the latest Harry Potter books were released

Children attending emergency department with musculoskeletal injuries on summer weekends 2003-5

We obtained data from the MetOffice<sup>3</sup> ([www.met-office.gov.uk](http://www.met-office.gov.uk)) to establish weather conditions recorded for each of the identified weekends at the closest weather station (Brize Norton) to our hospital. This allowed us to adjust for weather as a confounding variable if necessary.

The figure shows the weekend attendance to our emergency department in June and July between 2003 and 2005. The mean attendance rate for children aged 7-15 years during the control weekends was 67.4 (SD 10.4). For the two intervention weekends the attendance rates were 36 and 37 (mean 36.5, SD 0.7). This represents a significant decrease in attendances on the intervention weekends, as both are greater than two SD from the mean control attendance rate and an unpaired *t* test gives a *t* value of 14.2 ( $P < 0.0001$ ). At no

### What is already known on this topic

Traumatic childhood injuries are a serious source of mortality and morbidity

There is a seasonal variation in the incidence of injuries in muggle children, with the highest numbers occurring during periods of longest daylight, warm weather, and school holidays

### What this study adds

Releasing Harry Potter books seems to reduce the incidence of traumatic injuries in children

other point during the three year surveillance period was attendance that low. MetOffice data suggested no confounding effect of weather conditions.

### Comment

Harry Potter books seem to protect children from traumatic injuries. Fashionable or “craze” activities have previously undoubtedly contributed to the two million children who attend emergency departments with traumatic injuries each year. Organisations such as the Child Accident Prevention trust ([www.capt.org.uk](http://www.capt.org.uk)) and Royal Society for the Prevention of Accidents ([www.rospa.org.uk](http://www.rospa.org.uk)) have yet to recognise the potential benefit of this new pursuit.

To date no research has addressed the option of “distraction therapy” to prevent traumatic injuries. Alternative strategies such as “restraint therapy” and “pharmacological modification” have been considered and abandoned on ethical grounds. Distraction therapy has been used successfully in settings such as painful clinical procedures with good effect.

We observed a significant fall in the numbers of attendees to the emergency department on the weekends that of the two most recent Harry Potter books were released. Both these weekends were in mid-summer with good weather. It may therefore be hypothesised that there is a place for a committee of safety conscious, talented writers who could produce high quality books for the purpose of injury prevention.

Potential problems with this project would include an unpredictable increase in childhood obesity, rickets, and loss of cardiovascular fitness.

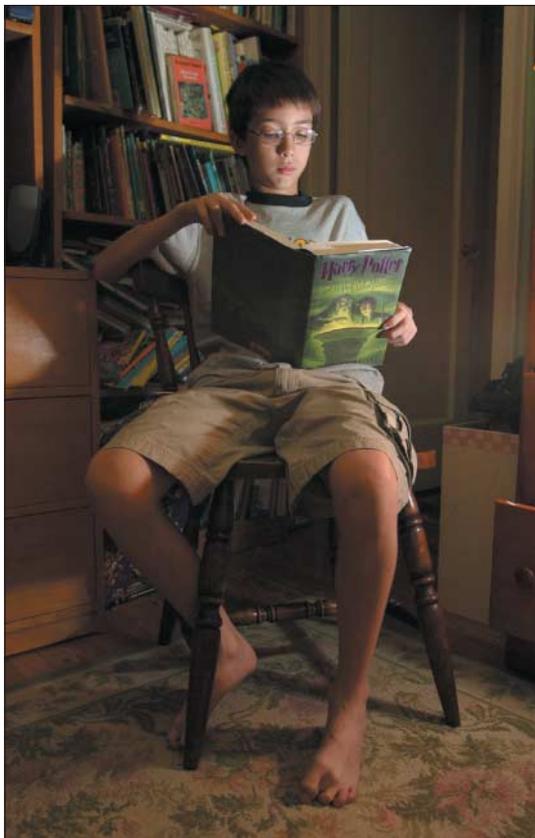
Contributors: KW conjured up the original idea for the work having experienced a quiet on-call weekend, then witnessing three of his children “petrified” on the sofa. DPJH and ND are wizards with numbers. SG wrote the paper and performed a spell check. DPJH is guarantor.

Funding: None.

Competing interests: KW has five children and has spent many summer days in the emergency department. SG, DPJH, and ND have no children but each have a pet owl.

Ethical approval: Not required.

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