

The Dangerous Dogs Act - Are We Barking Up the Wrong Tree?

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Abstract

Dog bites disproportionately affect young children and can cause significant injury and distress to the child and family. Despite introduction of legislation in 1991 (which was revised in 2014), dog bites continue to feature prominently in the media and dog ownership remains unregulated.

This paper identifies the failure of the Dangerous Dogs Act to reduce the number of dog bites in children. And fails to reduce the number of deaths due to dog bites per year. Furthermore, it identifies an evidence-based alternative approach to the reduction of bites in children through dog licensing, the proceeds of which are used to fund education for dog owners and children.

Keywords: Dog Bites; Young Children; Dangerous Dogs Act

Introduction

Dog bites are a global public health problem, with some estimates suggesting tens of millions of people are bitten by dogs annually. The vast majority of these happen in children [1].

Dog bites can be devastating. In recent years, we have admitted a number of children with severe injuries to our paediatric intensive care unit at St George's Hospital, London, UK. Injuries included de-gloving of the scalp, depressed skull fractures, extensive soft tissue damage and complex orbital fractures. Most children were infants under the age of 5. These avoidable injuries often require extensive maxillofacial reconstructive surgery, leave permanent disfigurement and significant psychological trauma for both the patient and their family. In addition to these most serious of injuries, many more children will have been admitted to our lower acuity wards, seen in Emergency Departments or managed in the community by their General Practitioner and discharged home.

Our experiences in caring for these patients have led us to review the available epidemiological data on dog bites in children, and critically appraise both UK and international public health measures to prevent them. Our hypothesis is that current legislation is ineffective at reducing the incidence of dog bites and that a call to examine the UK legislation in favour of a more evidence-based approach is needed.

Background

UK Data shows that deaths due to dog bites have gradually risen annually since the 1980s (Figure 1) [2], despite the introduction of legislation in 1991 and its revision in 2014. Promisingly, the number of deaths in the past 2 years has dropped; whether this is a sustained drop in response to effective legislation, or only a temporary reduction in deaths (as seen previously) remains to be clarified. The contribution of regional trauma centres (established in 2012) should not be overlooked, especially in light of the number of dog bites in children increasing by 11% in the last 4 years [3].

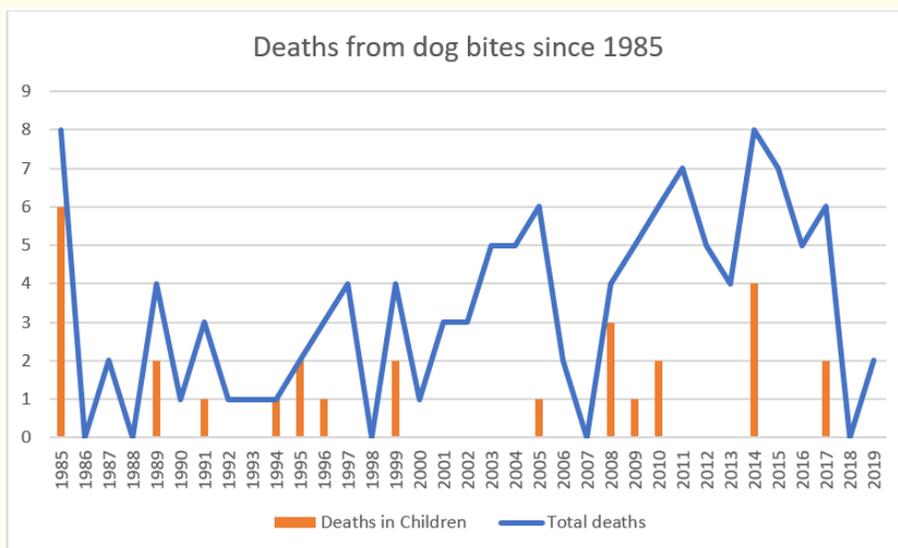


Figure 1: Total deaths per year due to dog attacks in the UK [2,4].

As figure 2 demonstrates, the youngest and most vulnerable children are most likely to be the victims of dog attacks. Compared to 2014, not a single age category of children has seen a sustained reduction in bites needing hospital attention, with a 13.7% increase in children aged 0 - 4 years attending hospital after attacks in the last 9 years [3].

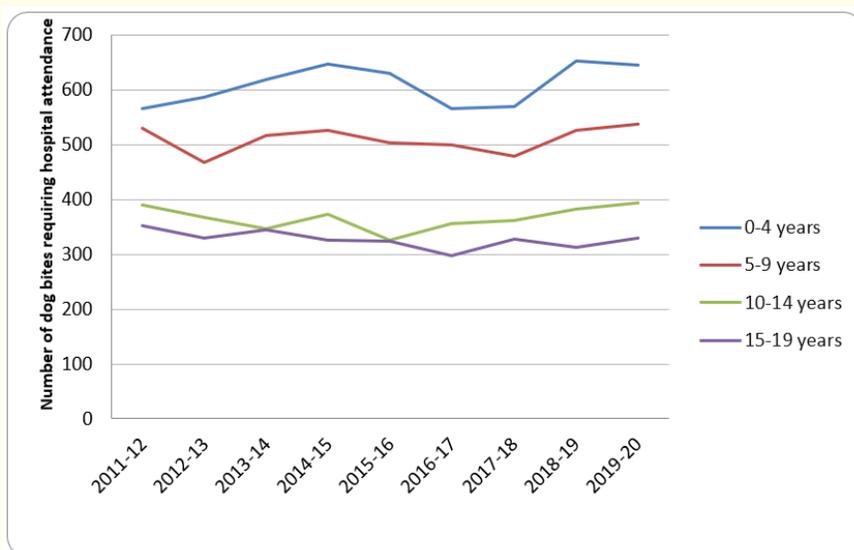


Figure 2: Number of dog bites per year in the UK, stratified by age [3].

Younger children are more likely to suffer significant head and neck injuries, requiring maxillofacial surgery and/or plastic surgery [5]. Globally, the observed rate of head and neck injury in children bitten by dogs is 48 - 80% and of those that need surgical intervention, 25% will need multiple operations [6-8]. Such disfiguring and complex injuries necessitate prolonged hospital stays and can lead to post-traumatic stress disorder and/or agoraphobia, in addition to increasing the propensity for social exclusion [9].

Illustrative case report

Our PICU is based within St. George's Hospital, one of London's four designated major trauma centres. Children from across the South of England are flown or driven to our Emergency Department (ED) to receive tertiary specialist paediatric medical and surgical care.

Our patient is a previously fit and well 20 month old girl. She was playing with her mother on the floor at her home when the family's pet dog attacked without warning. The mother described the dog as biting the child's mid-face in a prolonged manner without letting go. They drove to the nearby local hospital and were then transferred directly to our hospital.

On arrival in our trauma centre, the whole flesh of the midface was hanging off, with the nasal bones and nasopharynx directly visible. The images are too graphic for publication. Instead, we have shown an early post-operative image to demonstrate the extent of the injuries inflicted. Induction of anaesthesia, including good pre-oxygenation and intubation was challenging, though ultimately uncomplicated. With time, this girl has had a good outcome from skilled plastic surgery and has been left with no physical disability and only mild residual scarring.

The dog was not a banned breed and had no previous history of aggression; it has since been destroyed.



Image: Patient 1, day two post-operative.

Current UK Legislation

Dog bites in children (and adults) continue to feature prominently in the media. The UK Dangerous Dogs Act was created in 1991 partly in response to a number of high profile cases. These attacks were mostly by Pit Bulls, and the Act outlawed the ownership of four breeds, thought to be the most unpredictable and threatening to public safety (Pit Bulls, Japanese Tosas, Dogo Argentines and Fila Brazilieros). In response to ongoing significant attacks (and to include attacks situated on private land), the act was revised in 2014 to increase penalties for owners of dogs that cause harm, these include:

- Powers for Police or local authorities to order owners undertake dog training classes, use muzzles and leads, and require the dog be neutered.
- Extension of maximum prison sentences to 14 years from two for a fatal dog attack and five years from two for non-fatal injuries [10].

In the 12 months following the revision of the Dangerous Dogs Act there was a 2% increase in paediatric dog bites, and in 2016 there was a 4% decrease compared to 2014 [3]. From 2016 onwards, it is now mandatory for all dogs to be microchipped [11].

UK legislation has never mandated dog-ownership license, training for owners, or require the vetting of owners to ensure dogs are placed in appropriate homes. The law has failed in its primary objective to fully eradicate dangerous dogs from UK society [12], it has also failed in its efforts to improve public safety.

In 2016, the Royal Society for the Prevention of Cruelty to Animals (RSPCA) published a report which concluded that breed-specific legislation was failing to improve dog welfare, failing to reduce incidence of injuries and hospital admissions and as a consequence failing to protect the public from harm. The report highlighted that whilst some breeds do have a more aggressive temperament, overall dog bites do not demonstrate breed-specific patterns within the UK, undermining the logic of breed-specific legislation. Instead, the RSPCA recommended that emphasis should be placed on the role of the owner in controlling dog behaviour as a strategy for reducing dog bites [12].

Battersea Cats and Dogs home is an influential animal welfare charity based in London, UK. Their 2016 survey of 200 dog behaviour experts highlights the consensus that a dog's socialisation, both by the breeder before sale and owner is most important in preventing aggressive behaviour around people and children. Breed alone was much less important; those who did feel breed was an important contribution to risk could not agree on which breeds these were [13].

The UK Government's response to these concerns was that BSL has been retained due to concerns regarding the unrestricted ownership of 'dangerous dogs'; furthermore there was a consensus between some welfare groups, local authorities and the Association of Chief Police Officers that there is currently no viable alternative [11].

Experiences in other countries

Spanish legislation is similar to the UK: eight potentially dangerous breeds are banned. Rosado, *et al.* found that this legislation had not significantly reduced the incidence of dog bites [14]. Their study concluded by advocating behaviour training for dogs and owners plus educational programs aimed at teaching children how to interact safely with dogs.

Italy, The Netherlands and Canada have recently moved away from breed specific legislation (BSL). In 2009, Italy repealed its BSL and replaced it with laws that mandated dog owners must attend handling classes and hold liability insurance [15]. Italian law also stipulates that vets must maintain a register of local dogs who may be dangerous and must be muzzled in public [16]. The law was designed to address the fact that any dog can be dangerous, regardless of breed. No data has yet been published appraising the impact of this new legislation.

The Dutch government removed BSL in 2008 due to failure to reduce bite injuries [16]. New laws required compulsory registration, and the use of dog leads in urban areas (with fenced areas available for dogs to be allowed off their leads). However, in response to a spate of recent dog attacks, the Dutch government re-introduced BSL in January 2018, expanding the list to include 21 breeds whilst also requiring dog owners to attend dog behaviour and handling courses [17].

In 1985, Calgary, Canada, reported 621 dog bites per year (1 bite per 966 residents). In 2006, after minimal change to bite rates during the intervening two decades, the City of Calgary municipal government introduced a breed-neutral Responsible Pet Ownership Bylaw, built on five principles:

- 1) License and provide permanent identification for pets
- 2) Spay or neuter pets
- 3) Provide training, physical care, socialization and medical attention for pets
- 4) Do not allow pets to become a threat or nuisance
- 5) Ensure ethical procurement of pets from a credible source.

By 2008, the number of dog bites fell to just 145 per year (1 bite per 9000 residents) without the introduction of BSL. Instead, the Calgary city government engaged dog-owners in a campaign to promote responsible dog ownership, backed up by stringent enforcement of these principles. In tandem, volunteers visited hundreds of schools to teach children about safe behaviour around dogs. The programme is funded entirely by licence fees from dog owners [18].

Evidence for education and behavioural change

To those who study the circumstances surrounding dog bites, it will come as no surprise that the Calgary approach has worked. Indeed, the recommendations published by the Battersea Dogs and Cats Home very closely resemble Calgary legislation:

1. Education to avoid being bitten
2. Compulsory training of keepers
3. Breeder registration
4. Compulsory training of dogs
5. Owner registration.

Unfortunately, being a dog owner, appreciating how to care for them, and understanding why training is so important is not a given in the UK. Very few parents will expose their children to dogs whom they feel are dangerous, but this does not protect them from bites as 60% - 95% of dog bites are from familiar dogs [8,19]. 50% of people trust their dog enough to leave their children under 6 years old unsupervised; yet no adults were present in 87% of dog-related fatalities [9].

In 2012, a study in the US found children had little understanding of how to avoid dog bites, even in those who live in a dog-owning household or have been bitten in the past [20]. Two studies, including one from Edinburgh, UK, found that showing children videos of different dog behaviours to explain when a dog should be avoided almost doubled the pass rate of a dog safety test [21,22]. Encouragingly, recent data collected by the People's Dispensary for Sick Animals (PDSA) has revealed that the number of dogs being formally trained in classes or courses has risen from 24% to 29% in the last two years and that fewer prospective pet owners would consider buying a dog from a puppy farm [23-36].

Conclusion

There is clear evidence from the UK and around the world that breed specific legislation alone is inadequate to prevent or even reduce the incidence of dog bites. It is therefore surprising how BSL remains the cornerstone of bite reduction and prevention in most countries, including the UK. Incidence of dog bites in smaller children, and deaths, sadly continues to rise in the UK.

There is evidence that education, regulation and/or licencing based strategies reduce bite incidence. Both the RSPCA and Battersea Dogs and Cats home strongly advocate moving towards this approach which has seen unprecedented success in Calgary.

It is distressing to see the aftermath of dog bites in children, and our team strongly advocates for new holistic legislation to be considered urgently to reduce the number of children bitten by dogs.

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