

2016 US election result preceded fall in proportion of boys born in Canada

Sex ratio at birth fell in politically liberal areas, but not in conservative ones

The 2016 US presidential election result, which brought Donald Trump to power, was associated with a temporary fall in the proportion of boys to girls born in Ontario, Canada's most populated province, reveals research published in the online journal **BMJ Open**.

This short-term decline was evident only in politically liberal areas of the province, not in politically conservative ones.

The sex ratio at birth generally swings slightly towards boys. But stressful events during pregnancy, such as natural disasters and terrorist attacks, have typically led to a temporary fall in the proportion of boys to girls born three to five months later.

This pattern has been seen after various events, including the 9/11 terrorist attacks in 2001, the 2004 Madrid bombings, the 2005 London bombings, and the 2011 killings in Norway.

The result of the November 2016 US election was viewed by many as completely unexpected, with unclear global ramifications that raised societal concerns about the future.

In light of this, a team of Canadian researchers wanted to know if the unexpected victory of the right wing Republican nominee might have been perceived as a highly stressful event in left-leaning societies outside of the US, and might therefore have affected the sex ratio at birth.

They therefore analysed data on all births in Ontario, Canada's most populated province, across three time periods: before the election (April 2010 to October 2016); shortly afterwards (November 2016 to February 2017); and later on (March 2017 to October 2017).

Between April 2010 and October 2017, 1, 079, 758 babies were born in Ontario.

After taking account of seasonal factors, which are known to affect the sex ratio at birth, the lowest ratio of boys to girls born in the 12 months following the November election, occurred in March 2017, within the three to five-month interval usually associated with a stressful societal event.

This ratio subsequently recovered in the following five months, reflecting the transient nature and time course previously associated with such an event.

The fall in the sex ratio at birth in March 2017 was seen only in politically liberal areas and not in conservative ones.

This is an observational study, and as such, can't establish cause. And the authors point to some limitations of their research, including not knowing individual women's

politics or whether they thought the election result had contributed to the 'loss' of male babies.

But they conclude: "The unanticipated outcome of the 2016 US presidential election may have held unrecognised implications for the populations of other countries, where its perception as a societal stressor may have impacted the sex ratio at birth in the months thereafter."