

# What's in your stocking?

## Evidence around Santa Claus

G. Michael Allan MD CCFP Christina Korownyk MD CCFP Michael R. Kolber MD CCFP MSc  
Scott Garrison MD CCFP PhD James McCormack PharmD Sharon Nickel Adrienne Lindblad ACPR PharmD

### Clinical question

What has research told us about Santa Claus?

### Bottom line

Santa is linked to kindness, although children might not like waiting in line to see him at the mall. Children often stop believing in Santa around age 7 and this bothers parents more than children. Just because some children stop believing in Santa does not mean he does not exist: some people do not believe in evidence-based medicine, yet here we are.

### Evidence

Is Santa linked to kindness?

- Adults (N=52) shown the same story told by the same man dressed as Santa or a doctor found Santa "kinder": 9.2 versus 8.7 out of 10 ( $P=.05$ ).<sup>1</sup>
  - There was no defined minimally important difference in kindness: but every little bit matters.
- First-graders (N=25) donated more gum when randomized to discuss Santa versus the Easter bunny or pets (3.6 pieces vs 1.3 to 1.6).<sup>2</sup>
- It is unclear if invoking Santa to promote good behaviour yields the intended results.<sup>3</sup>

Are children excited to see Santa in the mall?

- In a 5-year study of 150 to 300 children each year waiting in line to see Santa, 58% to 82% were indifferent according to a facial rating scale.<sup>4-8</sup>
  - More seemed happy 1 week before (30% to 37% happy) versus 4 weeks before Christmas (10% to 16%).<sup>6,7</sup>
  - More parents seemed happier (82% to 93%) than children did (6% to 37%).<sup>5,7</sup>
  - Reliability low (1 observer, scale used more for pain).<sup>4-8</sup>

When do children stop believing?

- From 1896 to 1987, 4 studies found disbelief started at a mean age of 6.4 to 8.3 years.<sup>3,9-11</sup>
- Age is the strongest predictor of belief.<sup>3,9-11</sup> "Fantasy" thinking (eg, imaginary friends) and the sex of the child are not predictive.<sup>3,10,11</sup> Parents' belief<sup>1</sup> beyond age 10 and parental encouragement<sup>3</sup> might predict believing longer.
  - The transition is usually gradual, with 54% of children "figuring it out on their own."<sup>9</sup>

Are children upset when they stop believing?

- Children had minimal distress transitioning to disbelief.<sup>9</sup>
  - Most emotional ratings were "<10% intensity" and generally positive.
  - Parents are more negative: 40% sad versus 6% glad.

-Most children feel future children should be encouraged to believe in Santa.<sup>12</sup>

- Only 8% of newly disbelieving children thought they would not teach their kids about Santa.<sup>9</sup>

### Context

- Other limitations:
  - When lining up in the mall, it is unclear if the children were seeing the real Santa or someone in a Santa suit.<sup>4-8</sup>
  - Some research was performed in summer,<sup>9</sup> early fall,<sup>1</sup> or around Easter<sup>2,11</sup> (known as *bunny bias*).

### Implementation

While it might seem unbelievable for one being to visit children all over the globe on a single night, it is likely more unbelievable that academics are paid to write this review. Given that Santa generates positive feelings and disbelieving children support Santa for future generations, a prudent approach would be to follow some old advice: "You'd better be good, for goodness' sake." 🌟

Dr Allan is Professor and Director of Evidence-Based Medicine and Drs Korownyk, Kolber, and Garrison are Associate Professors, all in the Department of Family Medicine at the University of Alberta in Edmonton. Dr McCormack is Professor in the Faculty of Pharmaceutical Sciences at the University of British Columbia in Vancouver. Ms Nickel is Coordinator of the Evidence and CPD program of the Alberta College of Family Physicians. Dr Lindblad is Knowledge Translation and Evidence Coordinator for the Alberta College of Family Physicians and Associate Clinical Professor in the Department of Family Medicine at the University of Alberta.

### Competing interests

None declared

The opinions expressed in Tools for Practice articles are those of the authors and do not necessarily mirror the perspective and policy of the Alberta College of Family Physicians.

### References

1. Amin FM, West AS, Jørgensen CS, Simonsen SA, Lindberg U, Tranum-Jensen J, et al. Santa Claus is perceived as reliable and friendly: results of the Danish Christmas 2013 survey. *Ugeskr Laeger* 2013;175:3021-3.
2. Dixon DJ, Hom HL. The role of fantasy figures in the regulation of young children's behavior: Santa Claus, the Easter Bunny, and donations. *Contemp Educ Psychol* 1984;9:14-8.
3. Prentice NM, Manosevitz M, Hubbs L. Imaginary figures of early childhood: Santa Claus, Easter Bunny, and the Tooth Fairy. *Am J Orthopsychiatry* 1978;48:618-28.
4. Trinkaus J. Visiting Santa: an informal look. *Psychol Rep* 2004;95(2):587-8.
5. Trinkaus J. Visiting Santa: another look. *Psychol Rep* 2005;96(3 Pt 2):1022-4.
6. Trinkaus J. Visiting Santa: a further look. *Psychol Rep* 2006;99(3):993-6.
7. Trinkaus J. Visiting Santa: an additional look. *Psychol Rep* 2007;101(3 Pt 1):779-83.
8. Trinkaus J. Visiting Santa: a supplemental view. *Psychol Rep* 2008;103(3):691-4.
9. Anderson CJ, Prentice NM. Encounter with reality: children's reactions on discovering the Santa Claus myth. *Child Psychiatry Hum Dev* 1994;25:67-84.
10. Prentice NM, Schmechel LK, Manosevitz M. Children's belief in Santa Claus: a developmental study of fantasy and causality. *J Am Acad Child Psychiatry* 1979;18:658-67.
11. Cyr C. Do reindeer and children know something that we don't? Pediatric inpatients' belief in Santa Claus. *CMAJ* 2002;167:1325-7.
12. Nelms BC. Santa Claus: good or bad for children? *J Pediatr Health Care* 1996;10:243-4.



Tools for Practice articles in *Canadian Family Physician (CFP)* are adapted from articles published on the Alberta College of Family Physicians (ACFP) website, summarizing medical evidence with a focus on topical issues and practice-modifying information. The ACFP summaries and the series in *CFP* are coordinated by Dr G. Michael Allan, and the summaries are co-authored by at least 1 practising family physician and are peer reviewed. Feedback is welcome and can be sent to [toolsforpractice@cfpc.ca](mailto:toolsforpractice@cfpc.ca). Archived articles are available on the ACFP website: [www.acfp.ca](http://www.acfp.ca).