

## **THE LANCET: Health literacy lessons help children make sense of health claims, study finds**

**\*\*Video and photos available\*\***

***With unreliable health claims becoming increasingly widespread, improved health literacy could help children and adults make better choices about their health***

School lessons can successfully teach primary school children to critically evaluate health claims, and could help children make more informed decisions about health treatments and behaviours, according to a trial of over 10,000 children in 120 schools in Uganda published in ***The Lancet***.

The school intervention featured a combination comic book and textbook, and a linked study targeted parents, testing the effectiveness of a podcast series on their ability to assess health claims.

Inaccurate health information is widely spread via multiple sources such as TV, radio and social media. In this context, good health literacy – the ability to obtain, process, understand and judge the reliability of health information – can help people make good health choices, which may benefit their health and save resources. This is even more important in low-income countries where individuals can least afford to invest in ineffective treatments.

Most health information offers instructions or claims, but little background information about the basis for the claims that are made. Additionally, much health and science education tends to rely on children memorising facts, rather than teaching them critical thinking.

Dr Andy Oxman, co-author from the Norwegian Institute of Public Health, Oslo, Norway, says: “Unreliable claims about treatments are universal and a major public health concern, but few interventions aimed at teaching people to assess these claims have been tested. Our trial found that it’s possible to teach children, and their parents these important skills. While the study was conducted in Uganda, pilot testing in Kenya, Rwanda, and Norway lead us to believe the findings are likely to be widely applicable.” [1]

Dr Daniel Semakula, co-author from Makerere University, Kampala, Uganda, adds: “What the children are learning is very different from what they are normally taught. As one girl put it: ‘You can study about treatments, but this book was all about how to treat yourself.’ In other words, we are teaching children how to make good choices, not just telling them what they should do.” [1]

The two articles published today in ***The Lancet***, evaluate the effectiveness of the Informed Health Choices school-based intervention aimed at primary school children, and a podcast aimed at parents [2].

The resources focus on 12 key concepts including that anecdotes are unreliable evidence, that newer or more expensive treatments are not necessarily better, the importance of conflicting interests, and the need for fair comparisons of treatments. They also use real-world examples such as claims that cow dung can heal burns; that bed nets prevent malaria; or that antibiotics for ear infections do more good than harm.

Half of the 120 schools were randomly allocated to receive the teaching intervention. In the intervention schools, teachers attended a two-day workshop. They taught nine 80-minute lessons over the course of one school term. In the control group, there was no change to the usual curriculum. At the end of the school term, children were given a test with two multiple choice

questions for each concept. The questions were scenario-based and required children to assess claims.

More than twice as many children in the intervention group achieved a passing score compared those in the control group. In the intervention schools, 69% (3967/5753) of children who took the test had a passing score ( $\geq 13$  of 24 correct answers) on the test, compared to 27% (1186/4430) of children in the control schools.

In the second study, 675 parents were randomly assigned to listen to the Informed Health Choices podcast or typical public service announcements about health issues. The podcast covered nine concepts. After listening to the entire podcast series, parents were given a test with two questions per concept.

Nearly twice as many parents in the intervention group achieved a passing score compared those in the control group. In the podcast group, 70% (203/288) of parents who took the tests had a passing score ( $\geq 11$  of 18 correct answers) on the test, compared to 38% (103/273) of parents in the control group.

Ms Allen Nsangi, co-author from Makerere University noted: “We don’t know yet what, if any, effect the intervention had on actual choices, but we do know that at least some of the children have already started to apply what they learned, and not just to decisions about health. For example, one boy told us that when his father bought him new shoes, he told his father ‘that the new shoes are not better than the old ones’ and he was very happy to keep his old shoes.”[1]

Writing in a linked Comment, Laura Gauer Bermudez, Stephanie A Grilo, Dr John S Santelli and Professor Fred M. Ssewamala from Columbia University, New York, USA, say: “As the digital age is enhancing the speed and frequency with which we are able to access reliable health information, so too does it perpetuate the spread of misinformation. Communication platforms such as television, radio, and increasingly non-traditional platforms, including social media and internet search engines, offer rapid dissemination of both accurate and inaccurate guidance on preventive and curative health interventions. When the sharing of health guidance is done by dependable and verifiable sources, mass dissemination can have a positive effect on health behaviours. Conversely, non-scientific claims can quickly proliferate, negatively affecting health-care use and health outcomes for those who are unable to critically analyse available information and discern fact from fiction... While additional research would be helpful to understand the type of curricula that is most effective in given settings, these results should motivate a redoubling of efforts by governments, healthcare organisations, and health professionals to enhance health literacy among adolescents and adults. These studies suggest that targeting adolescents by as early as 10 years of age might be effective.”

#### NOTES TO EDITORS

The study was funded by the Research Council of Norway. The findings will be discussed at a meeting co-hosted by the Royal College of Paediatrics and Child Health (RCPCH), the Education Endowment Foundation and the Research Council of Norway on Monday 22<sup>nd</sup> May.

[1] The Informed Health Choices primary school resources include a combination textbook and comic book, an exercise book and a teacher’s guide. The primary school resources and podcast aimed at parents are available at: <http://www.informedhealthchoices.org/learning-resources/>

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**Media resources:**

- For B-roll footage of the resources being used in Uganda and Norway, please see: <http://press.thelancet.com/IHCvideos.doc>
- For photos of the resources being tested and used in Uganda, Kenya, Rwanda and Norway, please see: <http://press.thelancet.com/IHCphotos.doc>
- School text book, including comic book story: [http://www.informedhealthchoices.org/wp-content/uploads/2016/08/IHC-V3-Childrens-Book-and-Cover-Des2016\\_lowres.pdf](http://www.informedhealthchoices.org/wp-content/uploads/2016/08/IHC-V3-Childrens-Book-and-Cover-Des2016_lowres.pdf)
- Theme tune introduction to the podcasts: <https://www.youtube.com/playlist?list=PLeMvL6ApG1N0ySWBxPNEDpD4tf1ZxrBfv>
- Podcast series available at: <https://www.youtube.com/watch?v=BB1Ocqm0vOc>

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