

Title: Use of Infographics to communicate landmark glaucoma trials

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Conflicts of interest:

Rashmi Mathew is the glaucoma module lead for UCL MSc in Ophthalmology and Christin Henein a deputy.

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Infographics in clinical research communication

The power of infographics in communicating clinical research more effectively than words alone is becoming more widely acknowledged¹. Infographics have a pertinent utility in succinctly conveying a lot information. In the context of an overwhelming growing body of medical research and progress in big data, clear messaging is paramount². They have been particularly useful in conveying rapid messaging during the COVID pandemic across the NHS and communicating clinical research. A two-phase within-subject experiment found that participants preferred infographic research summaries to the traditional text only research abstracts and found infographics required lower cognitive load and did not worsen subjects' retention of information³. The study proposed infographics as an alternative representation of research findings or to accompany traditional text-only abstracts.

A cross over study showed that infographic abstracts were more effective than the title alone in generating research interest, which was measured as the amount of social media interactions, article downloads and reads⁴. A growing number of leading journals are leveraging the benefits of infographics in generating researcher and public engagement in clinical research and increasing the accessibility and appeal from a wider and non-specialist readership. Conversely, a failure to communicate clinical research clearly results in a gap between the research and its translation into clinical practice.

Use of infographics to enable clinicians to incorporate evidence into clinical care

In order to provide patients with evidence-based medicine, ophthalmic clinicians are required to stay up to date with relevant ophthalmic literature. However, there are many factors that impact the incorporation of evidence into ophthalmic care, such as time constraints⁶. It takes skill and planning to make infographics intuitive and engaging for busy clinicians. In terms of layout, content and formatting, infographics need to be accurate representations of the original article and highlight the key messages. Graph interpretation, numeracy skills and domain knowledge are factors that could limit the wider reach of clinical research infographics and modifications are required to tailor information to suit the target audience.

Use of infographics in ophthalmic education

Some students are predominantly visual, verbal or kinesthetic learners or a combination of the three. Infographics make use of multiple cognitive learning modalities. Allan Paivio's Coding Theory describes how people learn best when information is presented in multi-modalities⁷, thus enabling the mind to encode information in both modes as well as to build referential links between the two representations. According to the Coding Theory, creating and presenting infographics has profound implications for students to maximize their learning. As a way of developing visual literacy and critical appraisal skills, pairs of students were asked to create an infographic for a designated landmark study in glaucoma¹⁰ using a modified Cochrane dissemination checklist¹¹ (Figure 1). In this and future editions of EYE we present the infographics produced by UCL MSc students.

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Figure 1: Outline and outputs of infographic group workshop

