

Evolution and health promotion: could they work together?

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Background

Given the rising prevalence of preventable chronic diseases, there is an urgent need for effective strategies to promote healthy behaviour change. Getting people to engage with health information and advice is an important first step, yet it often proves difficult to achieve. First, there is a need to attract attention to the information, then to promote sufficient interest to maintain attention. The information also needs to be retained and easily accessible in the memory for it to influence decision making.

Increasingly, the concept of an evolutionary mismatch between the human body and the modern environment is being applied in the scientific literature to help understand the rise in chronic diseases. However, evolution is rarely mentioned in health information for the general public.

This study explored whether framing health promotion information for the public from an evolutionary perspective could help to achieve the necessary communication goals and increase engagement.

Method

Interviews with 18 inactive and/or overweight adults (ages 35 – 74, 44% ♂, 83% educated to degree level). Participants viewed and discussed a variety of evolutionary framed health resources about physical activity and diet.

Follow-up questionnaire 1 week later.

Thematic analysis was conducted with the data.

Results

Several themes were identified and grouped under the broad categories of facilitators and barriers to using an evolutionary framework. Follow-up questionnaires indicated that participants had continued to think about the resources in the following week.

Facilitators

Novelty: Linking the mismatch concept with health was perceived as novel, which helped to stimulate interest and prompted many people to think about the health messages in a new light.

That was very useful... I was just thinking of today and how to get fit and less weight ... I didn't realise, I didn't think about the evolution trail. (BH)

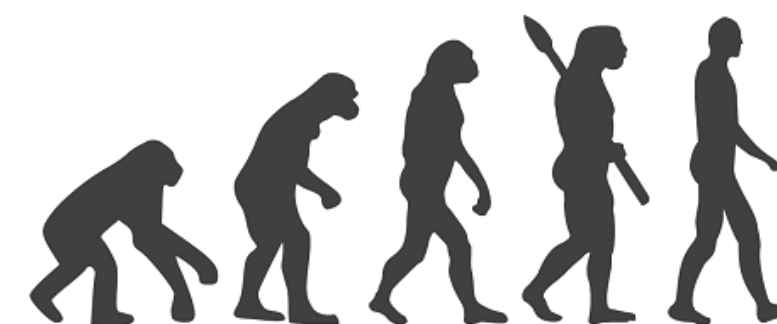
Contrast: Comparisons drawn between modern and ancestral lifestyles were seen as stark, which seemed to help people understand the need for healthy behaviour change.

The amount of sugary food that we had, and now suddenly, in literally the space of a few generations, it's so completely contrasting ... it helps you to understand some of the background of why. (RA)

Familiarity: The concept of evolution was not new to participants, leading to an overall impression that the information was familiar and so new facts or details were simply accepted.

It was stuff that I'd known or was aware of, not necessarily known details of, but I was aware of certain things. (MB)

Explaining why: The evolutionary perspective was felt to give a deeper understanding of "why we are what we are, why we do what we do" (MS). This seemed to give a stronger reason for making behavioural changes.



I'm somebody who really likes to understand something to be motivated as to why I need to do anything differently. (NC)

Barriers

Negative elaboration: Several people acknowledged that life expectancy is greater today than it has ever been before, and this caused a couple of participants to question the idea of using ancestral lifestyles as a guide for modern day.

We are eating more sugar nowadays than we were back along, but then again, you hear on the news nowadays that mankind is living longer ... so what's wrong? (MB)

Too simplistic: The resources did not go into great depth about the process of evolving, and for some participants this left unanswered questions.

The implication in this is that it's exclusively lifestyle choice and that's not necessarily the case(PH)

I don't see how I verify that the evolutionary sweet-tooth causes diabetes (FB)

Discussion

Using an evolutionary framework to deliver health information was perceived to be novel and interesting, yet believable. This could help to attract and sustain engagement with health information.

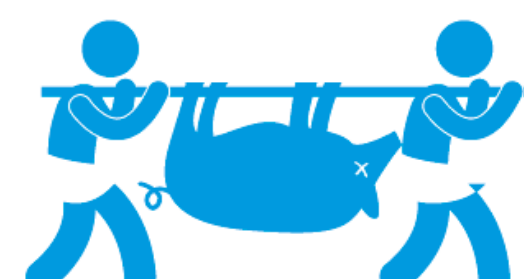
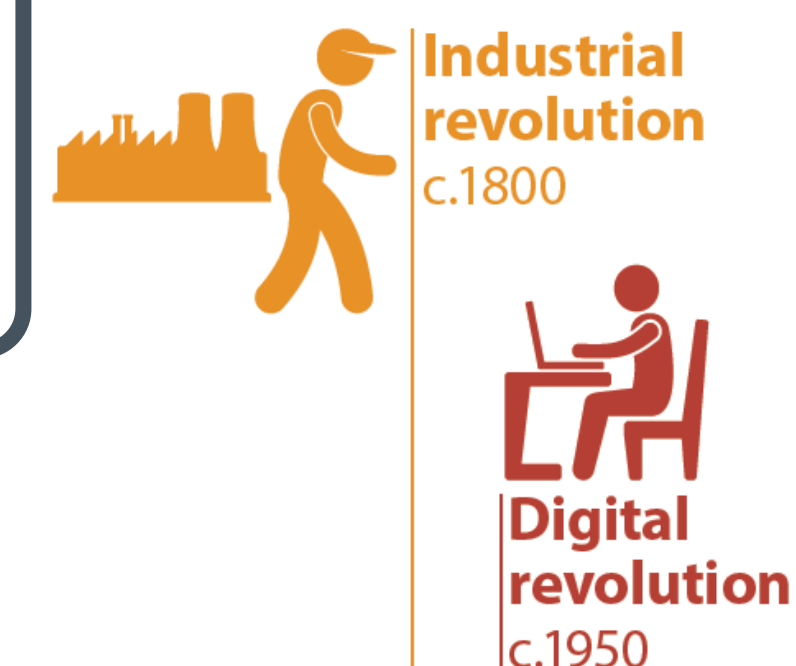
Furthermore, the ability of the evolutionary mismatch concept to explain why certain behaviours are harmful and also why humans are prone to behave in certain ways, seemed to give an meaningful rationale for behaviour change. This could help to boost an individual's motivation to change: this will be tested in future work.

To limit the likelihood of negative elaboration and appearing simplistic, more information could be presented to address identified concerns. However, a balance must be found to avoid presenting too much information, which can be off-putting.

Conclusion: Framing health information from an evolutionary perspective was found to be novel and interesting. Providing care is taken to limit the likelihood of negative elaboration and appearing simplistic, using an evolutionary frame could help to engage new audiences with important health information.

Selected references

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Agricultural revolution



20,000 BC

10,000 BC

1 AD

2016 AD