Is E-Learning the Way Forward to Ensure the Provision of Accurate, Consistent and Up-To-Date Nutrition-Related Messages Across Population Groups?

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Abstract from Brands B, Tran NN, Baudendistel-Happ E, et al.: Global e-learning in early nutrition and lifestyle for international healthcare professionals: design and evaluation of the Early Nutrition Specialist Programme (ENS). *Nutrients*. 2021;13(3):775.

Keywords

E-learning · Healthcare professionals · CME · Early nutrition · First 1,000 days

Abstract

Background: Every encounter a healthcare professional has with new or expecting parents offers an opportunity for addressing improved early nutrition and lifestyle. Evidence-based qualification programmes via e-learning offer valuable tools for attenuating the world's huge double burden of both under- and overnutrition in early childhood. We evaluated use and learner satisfaction of a global e-learning programme on early nutrition and lifestyle addressing international healthcare professional.

Methods: We implemented the Early Nutrition Specialist Programme (ENS) with six interactive e-learning courses on early nutrition building on more than ten years of experience with global e-learning platforms, expert knowledge and an international network in the subject field. We collected descriptive and explorative evaluation data on usage and learner satisfaction with a questionnaire and log data over three years among 4003 learners from 48 countries.

Results: Results show high completion of the ENS programme, with 85.5% of learners finalizing the programme after enrollment into the first of six courses. Very good results were provided for learner satisfaction with the courses (96.7% of users), for increasing understanding of the topic (97.4%) and matching the indicated time investment (94.4%). Most predominant themes in the open text fields of user feedback questionnaires were "Increase interactivity or number of audio-visuals", "Content suggestions or more examples" and "Technical (quality) issues or navigation problems".

Conclusions: The ENS programme evaluation shows high completion rates and level of satisfaction by learners from numerous countries. The different needs for Continuing Medical Education (CME) of healthcare professionals in diverse healthcare system settings can be met by a joint e-learning qualification programme. Further optimizations will be implemented based on user feedback. More research with a learning analytics approach may help to further identify the most effective and efficient didactic and pedagogic elements of e-learning.

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Knowledge Transfer

Background

Most people know, or have a reasonably good idea, what is meant by following a healthier diet [1]. So why, despite numerous healthy eating campaigns, do many people not have a diet that meets national healthy eating guidelines [2]? One barrier that has been cited over the years is that there is inconsistency in the messages people receive from a variety of sources including conflicting messages provided by healthcare professions [1, 3, 4]. Conflicting messages make people question what is meant by a healthier diet, and there is now the sustainability agenda added to the mix, potentially increasing levels of confusion.

Nutrition, like any science, is constantly evolving as we discover new concepts, or the evidence base is strengthened so that we can have more confidence in the important nutrition messages that need to be conveyed. And, indeed, there is always going to be some controversy – as with any science. For example, are all saturated fats 'bad', and is sugar really the demon that it is currently being portrayed as or can you actually include some free sugars in your diet and it still be healthy? There needs to be some mechanism whereby all nutrition and diet-related information provided can be updated as applicable and there needs to be confidence that the most appropriate messages are being conveyed and appropriately communicated. The correct level of communication is important – ideally foods and nutrients should not be labelled as bad, some saturated fats actually have important physiological functions! It would be great if the positive nutrition messages were always presented first with an emphasis on eating more vegetables, pulses, fruit, and dietary fibre and with practical ideas to support these positive messages.

Ideally, nutrition messages should be bespoke to the target audience and recognise why people of different ages may be at increased risk of nutritional deficiency. Nutritional requirements and nutritional vulnerability both change across the life course, and ideally there should be a different focus dependent on the age group one is working with. The promotion of a healthier diet alongside a healthier lifestyle to prevent the development of non-communicable diseases spans most decades of the life course, but with increasing age there is the need to ensure that diet-related messages help to reduce the risk of frailty.

Health and social care teams are often overstretched, and team members need to prioritise the support they offer to the patients and population groups they work with. For those working with vulnerable adults or children, promoting good nutrition may not be one of the areas they are able to prioritise. It is unlikely that there will ever be enough public health dietitians and health professionals sufficiently trained in nutrition to work with everyone and across all settings where there may be benefits in promoting healthier eating messages.

So, currently, we have some level of inconsistency, perhaps outdated nutrition advice, limited confidence in what is the best dietary advice, and limited healthcare resources to be able to support all

population groups who would benefit from some nutritional guidance. Training offered to all those who may be involved in offering nutrition- and diet-related guidance provides an opportunity to address some of these issues. Training provides the opportunity for accurate and evidence-based nutritional knowledge to be cascaded down, maximising the knowledge and skills of dietitians and other health professionals with advanced education in nutrition who are competent at delivering such training. It is difficult to see why such nutrition training is not embedded across all organisations. Some potential reasons may again be limited resources, lack of awareness of the nutritional impact on health, and the overstretched workforce not having time to access the training and/or there not being enough appropriately qualified people to deliver the training.

The COVID pandemic has led to different ways of working, and most practitioners have become much more familiar with a range of virtual platforms and have come to appreciate that virtual may actually increase the accessibility of learning opportunities with travel constraints being less of a barrier and there being more time flexibility. For those people involved in the delivery of nutrition training programmes, virtual delivery means that the resources can be re-used at different times and for different audiences and just updated as required thus enhancing resource efficiency. Previous concerns about e-learning programmes have centred around the lack of interactivity [5]. The constructivist theory suggests that learners construct their knowledge best when allowed to play an active role in their learning process [6].

Study Results

Brands et al. (2021) [7], in recognition of both the substantive role nutrition plays in the developmental origins of adult health and disease and the opportunity that every contact with a new or expecting parent offers for healthcare professionals to improve early nutrition, developed a global e-learning programme for healthcare professionals, the Early Nutrition Specialist (ENS) programme. To date, this programme consisting of six courses with expected learning outcomes to support best breastfeeding practices, the appropriate use of formula milk, monitoring growth and development, best practice when introducing solids, the role of long-chain PUFAs in development and disease prevention, and the emerging role of human milk oligosaccharides in immunity, has been delivered to over 5,000 healthcare professionals across nearly 50 countries. The aim of the ENS programme is to consolidate the current scientific evidence base, to base guidance on the appropriate international and regional recommendations and incorporate the latest research findings, and to be highly interactive using Moodle as the platform for delivery thus enabling the support of discussion forums. All learners undertake self-assessment at the start of each course to enable them to self-reflect on their baseline knowledge and also for the score to be used as part of the overall evaluation process. At the end of each course, there is a ten-question test with learners need-

ing to achieve 70% or higher before being able to collect recognised learning credits and a certificate of successful completion. The programme, designed by a team in Germany, piloted in Iran, Egypt, and Saudi Arabia, and delivered in three different languages, is accredited by a number of associations including the German Medical Association. The evaluation of the programme (n = 4,628; n = 3,872 paediatricians) clearly demonstrates both a good level of engagement and improved knowledge. Engagement and motivation are supported by the further use of technology with the employment of a digital learner management system where automated and individualised SMS messages and emails are sent to the learners.

Conclusion for Clinical Practice

So, to return to the title question, the ENS programme provides an excellent example of how e-learning programmes, if developed using sound pedagogical theories and regularly evaluated, can offer accessibility to a large number of healthcare professionals and enhance their learning of accurate and up-to-date nutritional messages to ensure that the people they work with are provided with correct and consistent nutrition- and diet-related messages.

Disclosure Statement

I hereby declare that there are no conflicts of interest with regard to this commentary.

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