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Art and science of designing patient education material for the 21st century

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Art and science of designing patient education material for the 21st century

Abstract

letter to the editor

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To the editor

I would like to share my experiences developing printed education materials with readers for the themed issue ('Generational change in nutrition and dietetics: The millennial dietitian'). Printed education materials (PEMs) are frequently used by dietitians to support education and counselling.¹ Yet evidence from a Cochrane review suggests that PEMs only produce at best modest improvements in health-related behaviours.² This may in part be because very few health professionals have undertaken training about how to design effective materials.³ Technology and health care are also changing rapidly, and dietitians must adapt and change their practice accordingly.^{4,5,6} The twenty first century dietitian will experience an increased focus on providing patient / client centred care, and will interact with individuals of all ages who are internet and tech savvy.⁷ Given the rise of chronic disease and multimorbidity⁸, many PEMs will quickly be bypassed if they do not meet the needs of the patient or client.^{9,10} I propose three evidence based steps for designing PEMs for dietetic practice in the 21st century and describe the lessons learned from my own practice in the Illawarra Shoalhaven Local Health District.

Step 1: Design PEMs to accommodate low health literacy.¹¹ This is called the 'universal precautions approach' and refers to the use of short sentences (less than 25 words); active voice; paragraphs broken into sections (preferably with subheadings); and restricting information to three key points.¹¹ Avoid using stigmatising terms such as 'diabetic' and instead use the term 'people / or person with diabetes'.^{12,13,14} Pictorial resources and images can transcend literacy

and numeracy barriers.¹⁵ However, ensure images of people reflect the target audience and the physical abilities of those targeted.^{16, 17} PEMs that combine text with related illustrations increase recollection and comprehension.¹⁸ Ensuring the material has ample amounts of white space and an obvious path for the eye to follow assists with comprehension.¹⁸ When writing PEMs it is important that only essential information is included and in a logical order.¹⁹ Ensure the three key messages are chunked together or signposted for the reader.^{20, 21, 22}

Evaluate the readability of the written material. The target level of readability is Grade 6 level or below (corresponding to reading skills of a typical 11-12 year old).²³ Suggestions for improving readability include writing in plain English¹⁹, reducing or eliminating jargon, and ensuring all acronyms are defined.

Evaluate the understandability and actionability of the PEM. Understandability refers to whether the PEM is written in a manner that can be understood by patients from diverse backgrounds and with varying levels of health literacy.²⁴ Actionability refers to health information that is written in a manner that enables health consumers to easily identify what they need to do, based on the information presented.²⁴ A user-friendly tool is available for use by dietitians to evaluate these important concepts. The Patient Education Material Assessment Tool (PEMAT)²⁴ provides users with a score out of 100 for both written and audio-visual PEMs. A score of >70 or 70% indicates an acceptable level of understandability or actionability.

Step 2. Ensure your resources are culturally sensitive. Translation is not enough: instead resources must be adapted to each group in a culturally sensitive manner.²⁵ Take the time to find out the most common languages in your hospital or health district. Also consider the emerging

languages and cultures in your region as new resources may need to be developed, even if they are only used sporadically at first. Although it is difficult for dietitians to be an expert in each cuisine, translated PEMs that are attentive to cuisine and include foods common in each culture are known to enhance adherence.²⁶

Step 3. Gain feedback on the resources from your consumers.^{23,27} This is a valuable but often overlooked step. Ensure you ask consumers the question ‘What is the information that stands out the most for you?’. You may be surprised to find that the most important dietetic message may not be clear for the target audience. Also ask consumers if other non-traditional formats for PEMs are desired. Perhaps apps, games, videos, infographics, animations or podcasts are preferred. In addition to your contact details (and email), include a link to appropriate evidence-based material online for consumers to seek further information. This can prevent consumers becoming confused with online material¹⁰.

Work on developing PEMs in our own health district includes:

- Mandatory evaluation of all PEMs for consumers using the free online readability calculator (such as <http://www.readabilityformulas.com/free-readability-formula-tests.php>)²⁸. Readability levels of some frequently used PEMs in our dietetics department are shown in Table 1. Most of our resources had readability levels exceeding Grade 6, which is consistent with previous research by Australian dietitians²⁹ and attention to this step of the design process is required.
- Revision of wording on PEMs to increase understandability. Examples from our own resources that were identified included: ‘*A low residue diet may be recommended for people who experience repeated episodes of bowel obstruction*’. This could be rephrased

to ‘*This eating plan is often used after people have a blocked bowel (bowel obstruction)*’.
Similarly, ‘*If you are underweight, increasing both protein and total energy (kilojoule or
calorie) intake may assist in gaining weight*’ could be reworded to: ‘*Extra help is needed
to help you regain weight after your surgery. Foods that are high in fat or protein are
especially important for your recovery*’.

- Revise wording to increase actionability. The selection of PEMs shown in Table 1 performed poorly for actionability. Major areas for improvement in our own PEMs include the need to include sentences that directly address the patient and to include an example of one action the user can take. For example: ‘*You can reduce how much salt you eat by looking at the nutrition information panel on packaged foods. Try and choose foods with no more than 120mg of sodium per 100g*’.
- Our health district requires us to obtain feedback from at least five consumers on all PEMs. Evidence suggests this number is usually adequate. However PEMs such as food lists may require up to 20 different consumers to ensure a diversity of views.³⁰ Feedback on our low potassium diet sheet found that a combined diabetic and low potassium diet PEM was desired by patients to reduce confusion. This was subsequently developed.

The science and art of developing PEMs is evolving rapidly. I hope dietitians find the three steps outlined to be valuable for their practice.

Conflict of interest: nil to declare

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