EMWA Professional Development Programme

Using readability tools to help edit biomedical research articles (LWF15)

Language and writing, Foundation Level, 3.5 hours

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Pre-workshop assignment

Objectives

1. Review some techniques that help writers produce clear, concise language.
2. Consider the readability of part of a published biomedical research article.
3. Select a sample of your own writing to bring to the workshop.

Content

Please see 'Instructions' below.

Assessment criteria

There will be no formal assessment but you should bring to the workshop your answers to the questions and notes, which we will discuss.

Instructions and questions

1. Read the three articles in *Medical Writing* cited below. You don't need to do the exercises in the articles, but they are useful if you have the time.
2. Read the extract from Jacka *et al*. (2017) attached below. Answer the two questions and bring your notes to the workshop.
3. Please also bring a sample of your writing to the workshop, as described at the end of this document.

Resources and materials

For reading:

Møller, C. 2017. Removing the dead wood. *Medical Writing*, 26, 14-16.
Available at: http://journal.emwa.org/writing-better/removing-the-dead-wood/

Every, B. 2017. Writing economically in medicine and science: Tips for tacking wordiness. *Medical Writing*, 26, 17-20.
Available at: http://journal.emwa.org/writing-better/writing-economically-in-medicine-and-science-tips-for-tackling-wordiness/

Lang, T. 2017. How to shorten a text by up to 30% and improve clarity without losing information. *Medical Writing*, 26, 21-25.
Available at: http://journal.emwa.org/writing-better/how-to-shorten-a-text-by-up-to-30-and-improve-clarity-without-losing-information/

For consideration (text provided below):

Extract from: Jacka, F., O'Neil, A., Opie, R., *et al.* 2017. A randomised controlled trial of dietary improvement for adults with major depression (the 'SMILES' trial). *BMC Medicine,* 15**,** 23.

Time required

2 hours

Read the following text and consider the two questions.

The text is an extract (the Background) from: Jacka, F., O'Neil, A., Opie, R., *et al.* 2017. A randomised controlled trial of dietary improvement for adults with major depression (the 'SMILES' trial). *BMC Medicine,* 15**,** 23.

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Questions (please bring your answers/notes to the workshop)

1. How easy or hard do you find the text to read?
2. List your reasons and select a few examples to support your observations.

There is now extensive observational evidence across countries and age groups supporting the contention that diet quality is a possible risk or protective factor for depression [1, 2, 3, 4, 5]. Although there are many versions of a 'healthful diet' in different countries and cultures, the available evidence from observational studies suggests that diets higher in plant foods, such as vegetables, fruits, legumes and whole grains, and lean proteins, including fish, are associated with a reduced risk for depression, whilst dietary patterns that include more processed food and sugary products are associated with an increased risk of depression [1, 6, 7]. Whilst cognisant of the limitations of observational data, these associations are usually observed to be independent of socioeconomic status, education and other potentially confounding variables and not necessarily explained by reverse causality (see, e.g. [7, 8, 9, 10]).

Recently, a meta-analysis confirmed that adherence to a 'healthful' dietary pattern, comprising higher intakes of fruit and vegetables, fish and whole grains, was associated with a reduced likelihood of depression in adults [1]. Similarly, another meta-analysis reported that higher adherence to a Mediterranean diet was associated with a 30% reduced risk for depression, with no evidence for publication bias [11]. The Mediterranean diet is recognised as a healthful dietary pattern and has been extensively associated with chronic disease risk reduction [12]. More recently, a systematic review confirmed relationships between unhealthful dietary patterns, characterised by higher intakes of foods with saturated fat and refined carbohydrates, and processed food products, and poorer mental health in children and adolescents [2]. Several cohort studies also reported associations between the quality of women's diets during pregnancy and the risk for emotional dysregulation in children [13, 14,

15], with new insights into potential mechanisms of action that include brain plasticity [16], the gut microbiota [17] and inflammatory [18] and oxidative stress [19] pathways.

Although there are data suggesting that some nutritional supplements may be of utility as adjunctive therapies in psychiatric disorders [20], the field of research focusing on the relationships between overall dietary quality and mental disorders is new and has thus far been largely limited to animal studies and observational studies in humans. Thus, whilst the existing observational data support a causal relationship between diet quality and depression on the basis of the Bradford Hill criteria [3] and are supported by extensive experimental data in animals (see, e.g. [21]), randomised controlled trials are required to test causal relationships and identify whether or not dietary change can improve mental health in people with such conditions. We conducted a systematic review and identified a number of interventions with a dietary change component that had examined mental health-related outcomes [22]. Whilst approximately half of these studies reported improvements in measures of depression or anxiety following the intervention, at the time of the review no studies fulfilling quality criteria had been conducted in mental health populations or had been designed to test the hypothesis that dietary improvement might result in improvements in mental health. Since then, one study has been published evaluating the possible impact of a lifestyle program, comprising both diet and exercise, on mental health symptoms in patients with depression and/or anxiety; this study failed to show any differences in symptom levels between those in the intervention and those in the attention control group [23]. On the other hand, post hoc analysis of a large-scale intervention trial provides preliminary support for dietary improvement as a strategy for the primary prevention of depression. Individuals at increased risk for cardiovascular events were randomised to a Mediterranean diet supplemented with either extra-virgin olive oil or mixed nuts, or a low-fat control diet [12]. Whilst not statistically powered to assess the effectiveness of the intervention for preventing depression, there was evidence (albeit non-significant) of a reduced risk for incident depression for those randomised to a Mediterranean diet with nuts. This protective effect was statistically significant in those with type 2 diabetes, who comprised approximately half the sample [24].

Using a randomised controlled trial (RCT) design, we thus aimed to investigate the efficacy of a dietary program for the treatment of major depressive episodes. In this trial, Supporting the Modification of lifestyle In Lowered Emotional States (SMILES), we hypothesised that structured dietary support, focusing on improving diet quality using a modified Mediterranean diet model, would be superior to a social support control condition (befriending) in reducing the severity of depressive symptomatology.

Please also bring to the workshop a piece of writing of about 500–750 words.

Ideally this should be your **own writing**, but text written by someone else will suffice. It is important that the text is **work in progress**, rather than something that has already been read and edited by other people.

We will perform some simple analyses to assess its ‘readability’.

- Ideally, bring the example as a Microsoft Word document on a laptop (or USB drive so you can put it on someone else's laptop). If you bring a laptop, please charge the battery, as power points may be in short supply.
- Suitable writing examples include: the Introduction or Discussion to a manuscript you are writing/editing/have edited, part of a review, a literature review, short report or other relatively non-technical piece of academic writing.
- It's best to choose something written in full sentences and paragraphs, rather than lists or notes. Please avoid material that is very technical or full of data and formulas. Ideally, **delete** citations, figures, tables, headings and subheadings, and reference list.

If you have any questions about the pre-workshop assignment, please contact: john@librasciencecomms.co.uk.