

JOURNAL REVIEW

Guidelines and recommendations: can we trust them?

Use of evidence in WHO recommendations. Oxman AD, Lavis JN, Fretheim A. *Lancet* 2007; **369**: 1883–1889

Leading by example: a culture change at WHO (Commentary). Hill S, Pang T. *Lancet* 2007; **369**: 1842–1844

Background

Why should family planning health professionals be interested in the standards of World Health Organization (WHO) recommendations? The Clinical Effectiveness Unit (CEU) for the Faculty of Family Planning and Reproductive Health Care appear on the Faculty website¹ and are sent to members in a print version. They include the UK adaptation of the WHO recommendations for contraceptive use and these are usually referenced in the other guidance documents. Indeed, many of the CEU guidance documents draw directly on what has been recommended by WHO. We should therefore understand some of the difficulties inherent in drawing up recommendations.

A previous review² looked at the parameters for citing randomised evidence in guidelines. They found that those produced by governments or professional bodies were poorer than those with funding from universities or, surprisingly, private funds that were mostly from pharmaceutical sources. The review demonstrated that we should understand how a guideline is developed before adopting it. Even if good quality randomised evidence is available, how it is interpreted may be subject to bias. A useful exercise to illustrate this appeared in *Bandolier*.³ Most contraceptive guidance recommendations are not from randomised evidence but at evidence Level C – even more subject to individual or corporate opinion. Moving from evidence to recommendations requires judgments, particularly about the outcomes desired and about the balance between the desirable and undesirable consequences of choosing one option over another.

We tend to assume that making decisions in groups eliminates, or at least reduces, bias. However, many studies of group activity have shown that groups can make poor decisions.⁴ For example, the group may decide to base their recommendations on a systematic review, despite knowing, as individuals, that the review is out of date and newer evidence makes its conclusions unreliable. Normative influences affect value judgments and are based on an individual conforming to the group expectations.

This article and its accompanying commentary reinforce the inherent dangers of accepting recommendations or guidelines drawn up by others. Applying them without thought to the clinical management of individual patients may be harmful. All of us should look critically at the ways in which these diktats are produced and this article and the commentary help us to do that.

The study

The researchers in this study of WHO recommendations interviewed department directors or nominated deputies at WHO headquarters in Geneva. The interviewees were asked to select one or two guidelines or policies that their department had produced, and the questions focused on the methods they had used when developing their recommendations.

The standard procedure reported was by convening expert committees with external consultation for the development process. Few directors had developed dissemination or implementation plans. Although many interviewees reported that they had used background documents to inform the work of the

expert committees, there were no consistent methods for preparing such documents. For example, the participating experts could select the background documents according to their own standards. A small number of the directors mentioned using systematic reviews and only one reported grading the quality of the evidence. Although directors were not asked specifically about group processes, many made comments suggesting that group processes were not structured in respect of the group composition, format or rules.

Costs were often taken into consideration, but other value judgements, such as weighing potential harms against potential benefits, were rarely addressed explicitly. Possible harmful consequences were only mentioned for clinical interventions, not for public health or policy interventions. One director was quoted as saying that: “No harms are likely, since the recommendations were made by the top experts”.

The descriptions the directors provided of the group processes suggested that the participants were implicitly weighing evidence of benefits and harms along with values and ethical considerations. One director obviously recognised the dangers inherent in an unstructured group process and is quoted as saying: “There is a tendency to get people around the table and get consensus – everything they do has a scientific part and a political part. This usually means you go to the lowest common denominator or the views of a ‘strong’ person at the table”.

In 2003, WHO produced in-house standards for guideline development similar to other organisations. The findings from this study clearly indicate that these standards were not followed, and only two of the directors had plans to use the guidelines for WHO guidelines. The authors provide references to show that reviews of clinical practice guidelines produced by other organisations also demonstrate that they do not adhere to their own guidelines for producing recommendations. Processes for developing the recommendations typically relied on experts in particular areas and not on representatives from those who might use the guidelines. Also, there was little use of experts in methodological areas such as information retrieval or group facilitation.

Following the conclusions of this study, WHO announced the establishment of a Guidelines Review Committee. The commentary by Hill and Pang commends this action. The commentary concluded that: “Basing guidelines on explicit and transparent consideration of the best evidence is crucial to WHO’s international credibility, standing and reputation”.

Comment

Guidelines are important, and are proliferating. Some guidelines are contradictory. They should be based on the best available evidence but studies show that many are not. Involving those who are to use the guidelines, and the use of information retrieval experts and group facilitators might also enhance the process. Incorporating how the guidelines are to be disseminated and evaluating the outcomes from their use are also important. It is crucial for guideline developers and their users to understand the necessary processes so that harm caused by the unthinking application of biased guidance is reduced.

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References

- 1 Faculty of Family Planning and Reproductive Health Care website. <http://www.ffprhc.org.uk>.
- 2 Giannakakis IA, Haidich AB, Contopoulos-Ioannidis DG, Papanikolaou GN, Baltogianni MS, Ioannidis JP. Citation of randomized evidence in support of guidelines of therapeutic and preventive interventions. *J Clin Epidemiol* 2002; **55**: 545–555.
- 3 Mindstretcher: making decisions for guidelines.

Bandolier, April 2006. <http://www.jr2.ox.ac.uk/bandolier/band146/b146-7.html> [Accessed 1 August 2007].

- 4 Myers DG. *Exploring Social Psychology* (4th edn). New York, NY: The McGraw-Hill Companies, 2007.

Effects of different doses of physical activity on cardiorespiratory fitness among sedentary, overweight or obese postmenopausal women with elevated blood pressure. A randomized controlled trial. Church TS, Earnest CP, Skinner JS, Blair SN. *JAMA* 2007; **297**: 2081–2091

Physical activity, although not a drug, is frequently ‘prescribed’ by health care professionals in an attempt to prevent development of chronic disease and as an adjuvant to drugs being used to treat conditions including cardiovascular disease and diabetes. However, the minimum and maximum safe dose of physical activity to achieve these benefits is not known, nor whether increasing amounts of physical fitness produces graded health benefits. As a consequence, various expert groups have produced recommendations and guidelines for recommended levels of physical activity. These recommendations differ, resulting in confusion amongst patients and clinicians as to the optimum levels of physical activity required to achieve health benefits.

The primary aim of the Dose-Response to Exercise in post-menopausal Women (DREW) trial was to examine the effect of 50%, 100% and 150% of the National Institute of Health (NIH) Consensus Panel physical activity recommendation on cardiorespiratory fitness in women.¹ The study randomly assigned 464 sedentary, overweight or obese postmenopausal women with a mean body mass index of 31.8 and systolic blood pressure of 139.8 to a control group or to three groups with different exercise regimes (4, 8 or 12 kcal/kg per week). Exercise sessions were directly observed and 6-month follow-up over the intervention period was excellent. The exercise groups adhered to the NIH recommendations in terms of minutes of exercise per week and energy expenditure but the number of exercise sessions undertaken per week was lower than recommended (2.6 to 3.1 instead of 5). The primary outcome was aerobic fitness as assessed by a cycle ergometer and quantified as peak oxygen consumption ($\text{VO}_{2\text{abs}}$ in litres/minute). The study demonstrated that there was a linear, dose response increase in aerobic fitness over the three groups with significant increases in peak absolute oxygen consumption (4.2% in the 4 kcal/kg, 6.0% in the 8 kcal/kg and 8.2% in the 12 kcal/kg per week group). However, the other parameters measured including weight, lipid profile and blood pressure showed no significant improvement in any of the exercise groups.

Although this study can only comment on the model of exercise studied in this trial, it supports the statement that “Even a little is good; more may be better” in terms of exercise and aerobic fitness.² However, it cautions against exercise being used in isolation without other interventions (e.g. dietary) to achieve other health benefits such as weight loss and improvements in other cardiovascular risk factors such as blood pressure.

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References

- 1 Physical activity and cardiovascular health. NIH Consensus Development Panel on Physical Activity and Cardiovascular Health. *JAMA* 1996; **276**: 241–246.
- 2 Lee IM. Dose-response relation between physical activity and fitness: even a little is good; more is better. *JAMA* 2007; **297**: 2137–2139.