WHAT'S ON YOUR MIND?

Reducing Placebo Response: The Unbiased Electronic Rater

Kirby et al. raise the problems that occur in a clinical trial if there is substantial improvement in patients in the placebo group, for example in a depression study (*ACT*, November 2005, pp. 48–52). Although, as they state, the contributions of different factors in such improvement are hard to quantify, there are three main reasons why the ratings of a patient taking placebo could improve:

1. The natural course of the disease. Depression tends to be episodic, and a proportion of patients will get better whether they receive any treatment or not.
2. The expectations of the patient that the treatment will be effective. This is the true placebo effect.
3. The expectations of the rater, based on knowledge of the stage of the patient's treatment, and other aspects of the patient's case.

Note that in the first two cases the patient is actually getting better, so the ratings should improve. Case 3 is quite different, and represents a form of measurement bias. Kirby et al. do not mention the evidence that this does indeed occur. For example, Renfordt and Busch[1] compared ratings of "time-blind" video interviews with those where the rater knew the stage of treatment the patient was at. The nonblind rater made more optimistic ratings later in treatment compared to the time-blind rater, indicating that this type of bias is a real issue. Another source of bias in the same direction is ratings inflation, when assessments are made in the knowledge that only patients above a certain score will meet entry criteria. Again there is real evidence that this can occur.[2]

Kirby et al. suggest that the solution to rater bias is to ensure that the rater is blind to the sources of information that could influence ratings. There is a more straightforward solution, which is to eliminate the rater and collect data directly from the patient electronically. Such an approach is not new. Computers have been used both to take histories and to rate severity in psychiatry and other areas of medicine for many years.[3,4] An editorial in *The Lancet* in 1983 pointed out the greater accuracy of information provided by a patient to a computer rather than a physician—for example, more-readily revealing personal or potentially embarrassing information in a computer interview than to a physician.[5]

What is more recent is the availability of the technology to collect data and make it available for review, the expertise in developing systems that can easily be used directly by patients, and the availability of a wide range of validated instruments for this purpose. The automated system doesn't mind if the patient meets the entry criteria for the study, doesn't have any expectations about whether she will change for the better or not at all, and isn't afraid of asking embarrassing questions. Such systems can standardize the assessment process, eliminate bias, and improve data quality. This approach should always be considered when planning a study where primary data is collected from the patient.

References

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