

Our research design, randomising after admission and after some early in-patient default, does not allow for a meaningful overall comparison of default rates between the in-patient and day patient groups.

Less than 50% of all referrals to our day hospital end up attending—confirming the basic point made by Drs Davidson and Connolly. We try, however, to arrange a preliminary contact and explain fully the implications of day attendance prior to admission so that our early default rate for patients actually admitted is close to the lower reported figure of 16%.

PETER H. DICK

*Royal Dundee Liff Hospital
Dundee DD2 5HF*

Seasonal Affective Disorder

DEAR SIR,

The paper by James *et al* (*Journal*, October 1985, 147, 424–428), on winter depressions provided a welcome bit of light relief. Patients were recruited through a newspaper advertisement and reported that they felt less depressed after exposure to bright light than dim light, during a cross-over trial. The authors report that they did not inform the patients of their prediction that bright light would be superior, yet that must surely have been obvious (unless, of course, the patients themselves were very dim).

At one point in the discussion the authors, commenting on the fact that even their dim lights had some antidepressant effect, acknowledge that “we would have predicted that the publicity about the previous studies would have biased patients against responding to the dim lights”. Could they throw some light on why they do not mention this as a possible explanation of their findings?

J. R. KING

*The Medical Staff
Barnsley Hall Hospital
Bromsgrove, Worcs.
B61 0EX*

Drs Rosenthal and James Reply

DEAR SIR,

Dr King raises an important point, which was not addressed in our article, though we have discussed it in detail elsewhere (Rosenthal *et al*, 1985).

It is conceivable that different antidepressant effects in response to bright and dim light treatments might have occurred as a result of different expectations. Such patient expectations might have been generated by the appearance of the light and might have been amplified by comparing the two light conditions and speculating about our underlying

hypothesis. While patients were able to make comparisons during the second phase of the cross-over, they had no basis for comparison during the first phase as they were not shown both types of light before the first treatment. If expectations based on a comparison of the two conditions were responsible for the superior effect of bright light, one would have expected that those who received dim light second, after they had already been exposed to the bright light condition, would have responded more poorly than those who received it first. Conversely, one would have expected that those who received bright light second would have responded better than those who received it first. However, analysis of Hamilton Depression Ratings showed no ordering effect, which would suggest that differential expectations resulting from comparison of the conditions did not play a significant role in the different antidepressant effects.

That still leaves open the possibility that, regardless of the order of presentation, the bright light might have generated more powerful expectations of improvement than the dim light. Such a possibility can never be ruled out with certainty in any study where it is impossible to administer the intervention on a double-blind basis. However, the following observations, based on all our light treatment studies, suggest that a placebo mechanism alone is not a plausible explanation for all the resulting antidepressant effects. 1) There is generally a lag time of approximately two to four days both for response after initiating light treatment and for relapse following withdrawal of light. One would expect a placebo to show a more rapid and variable time course for response and relapse. 2) Light treatment has been effective repeatedly and for prolonged periods of time within individuals, whereas placebos generally decrease in efficacy over time and with repeated use. In some cases light treatment initiated in the fall has prevented the development of winter depression. 3) As stated in the paper which Dr King cites, we have found the pattern of response to both bright and dim light to be consistent over the years. In addition, the difference between the efficacy of bright and dim light treatments has not grown progressively larger from year to year, as one might have predicted had the response of patients been due to expectations generated by widespread publicity.

In order to address the question of patients' expectations more directly, future studies of light therapy should incorporate some means of evaluating expectations systematically before each treatment condition.

Although Dr King's comments were provided in a light-hearted vein, we found them illuminating and