

every person had within them. By contrast, the more aggressive style of imaging, which aims at strengthening the immune system by visualising the symbolic destruction of cancer cells,<sup>31</sup> may bring about a sense of failure and helplessness if this desired result does not subsequently occur.

Both types of treatment used in this study were shown to be more effective in women aged 55 or over, who showed less tension and depression at the end of the six weeks as well as more improvement on overall mood state. Why did the older women respond better to treatment? As mentioned above, substantially fewer of these women worked during their course of radiotherapy. Because of their age they would be less likely to have children to care for and possibly led less busy lives than the younger women. Thus it may be that the older women had more time to practise our treatment programme.

Several studies of cancer have focused on abnormal release of anger, suggesting that both extreme suppression and extreme expression of anger may be characteristic of patients with cancer.<sup>32,33</sup> In this study we found no differences in the profile of mood states or Leeds general scales at the end of the treatment period for women with low anger scores—that is, extreme suppression—but we found that women with high anger scores who received relaxation or relaxation plus imagery treatment showed more fatigue, less vigour, and greater total mood disturbance than the controls. It may be that some women are so angry that they are unable to derive any benefit from relaxation treatment. We do not know whether before diagnosis those women with high scores for anger had always expressed their anger. Possibly they had been accustomed to suppressing anger and the knowledge that they had cancer gave them a legitimate reason for displaying it. Peck found that almost half of his sample of 50 patients displayed extreme anger in response to their cancer.<sup>9</sup> We hope that future work will clarify this point.

Other studies have found a high prevalence of psychiatric morbidity in patients with mastectomy given adjuvant chemotherapy.<sup>24,34</sup> We cannot address this issue, as only one of the 19 patients with mastectomy in our study had received adjuvant chemotherapy.

The Leeds general scales for anxiety and depression showed no significant changes over the six weeks of treatment. This may be because the scales contain certain somatic items—for example, disturbed sleep and appetite—which may have a physical cause and be less sensitive than psychological items to change in response to relaxation treatment. The hospital anxiety and depression scale,<sup>35</sup> which omits somatic items, is currently being used to assess psychiatric morbidity in patients with cancer<sup>36</sup> and may prove to be a better measure for use in work in this subject.

Sims, in her review of published work relating to relaxation techniques and patients with cancer, criticised studies which did not identify the sample population, had insufficient numbers, grouped all patients with cancer together as if they were a homogeneous group, and failed to control for attention by instructors.<sup>37</sup> Our study addressed these issues and showed that easily learnt relaxation treatments significantly improved the mood state of patients receiving a course of radiotherapy for early breast cancer, that relaxation plus imagery was the most effective treatment, and that women aged 55 and over benefited most.

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## Correction

### Fluorescent lights, ultraviolet lamps, and risk of cutaneous melanoma

We regret that three errors occurred in this paper by Dr A J Swerdlow and others (10 September, p 647). In the abstract lines 16 and 17 should have read, "Have first used ultraviolet beds or lamps more than five years before presentation"; in table I the category for exposure within five years at work and at home should have read  $\geq 5$  (not  $> 5$ ); and in the discussion, paragraph 3, the phrase "irradiance causing erythema several times that produced by the summer noon sun" should have read: "irradiance weighted for erythema effectiveness several times that produced by the summer noon sun."