groups of people who are somehow recognisable. Is it any wonder that, as Smith asserts, "heterosexuals have simply not adopted safe sex in large enough numbers to prevent HIV spreading through the heterosexual population"?

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EDITOR,—To me the most important point in Richard Smith's editorial on promoting sexual health is that we are going to have to change a great many of the attitudes of people in Britain before we can possibly change their health habits.¹ So many are mealy mouthed when it comes to anything with a sexual content and squirm with horror at direct, honest language. As Smith says, "Use a condom" is a clear and simple message, but for far too many Britons it is made complicated by being put into words at all. Too many people in Britain believe that talking about sex is acceptable only if it's in the "dirty joke" mode, never if it's simple and direct.

I should know. I have been bombarded with complaints from women who think it is disgusting that I mention on television the fact that women menstruate and have to use sanitary towels. The commonest reason for complaint has been that the advertisements in which I appear have been screened at times when children were watching. "And how can I possibly talk about such things to my children? I shouldn't have to listen to even the mention of periods in front of my teenagers."

We're going to need all the help we can get in promoting honest talk about shared sexual experiences. Once we get that maybe we will be able to promote sexual health.

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Heterosexual transmission of HIV

EDITOR,—Richard Smith's editorial addresses the promotion of sexual health.¹ In Britain most mass health education regarding heterosexual transmission of HIV-1 infection has presented sex with casual partners as the main risk. But if most heterosexual intercourse involving infected people took place in stable relationships long term partners would be the most at risk from unprotected sex.² In Sweden 53 heterosexual partners of people with HIV infection were infected: 32 by steady partners and 21 by casual partners.³ In the United States, having a partner who used drugs, but not the number of partners, carried a significant risk of HIV infection.⁴ Of 35 women who acquired HIV heterosexually in Copenhagen, 10 were infected by a cohabiting partner; only one of the 25 women with partners in a high risk group was aware of the partner's risk activities when the relationship started.⁵

All cases of AIDS resulting from heterosexual transmission within the United Kingdom reported to the Communicable Disease Surveillance Centre

and the Communicable Diseases (Scotland) Unit were classified, based on the information in the reports, into transmission within long term sexual partnerships (marriage, cohabitation, and relationships of six months or more) or short term partnerships (lasting less than six months). Cases were also classified according to characteristics of the partner into first generation (partner infected through injecting drugs, receiving contaminated blood, or homosexual intercourse) and second generation (partner infected heterosexually). Where the type of partnership was known, 18 of the 21 first generation cases (86%) and 13 of the 31 second generation cases (42%) were presumed to have arisen in long term partnerships. There was a pronounced difference between the sexes, with 73% of the men having been infected in short term partnerships and 83% of the women in long term partnerships (table).

Heterosexual transmission of HIV in United Kingdom: analysis of reported cases of AIDS by duration of partnership to December 1991

Type of partnership	First generation transmission		Second generation transmission	
	Male	Female	Male	Female
Long term	4	14	2	11
Short term	1	2	15	3
Not known	1	4	16	3
Total	6	20	33	17

This information was not collected in a systematic way, and its completeness may be biased. Because of the long incubation period cases of AIDS may not reflect the present pattern of transmission. Data on AIDS, however, are not subject to ascertainment bias as most patients will seek medical care, in contrast to patients with HIV infection.

Further information is needed on the type and duration of partnership in which recent infections occurred and, for those infected by partners in a high risk group, whether they were aware of their partners' risk factors at the time of the partnership but still had unprotected sex or whether they were not aware. From the data available on cases of AIDS, however, heterosexual transmission of HIV in long term sexual relationships should not be ignored.

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Sexual contact in the doctor-patient relationship

EDITOR,—I was interested to read in D Wilbers and colleagues' report of their study of sexual contact between doctors and patients that the Dutch National Society for General Practitioners had withheld its approval for the questionnaire to

be sent to general practitioners.¹ The society's reason was that the specific importance for general practitioners was not evident. Wilbers and colleagues quote a previous finding that six out of 29 responding general practitioners (from 75 contacted) had had erotic physical contact with a patient. Kardener *et al*'s American study,² referred to in Thomas Fahy and Nigel Fisher's editorial,³ showed that half of 100 respondents thought it might be therapeutically beneficial to indulge in "non-erotic hugging, kissing and affectionate hugging" while a quarter thought that erotic contact may at some time be beneficial. Only 3%, however, admitted to having engaged in erotic practices.²

The media have given a lot of attention recently to claims about doctors making advances towards patients, and many doctors have experienced the reverse. General practitioners are particularly at risk because of more frequent contact and longer acquaintance with patients, the congeniality of surgeries and intimacy of home visits, and the greater likelihood of contact outside the professional relationship.

Though a few doctors may enjoy erotic involvement with patients, many fear it. This may lead them to avoid taking any interest in a patient's sexuality, to the potential detriment of the patient's health. Sexual dysfunction is common, and many would seek help for it if encouraged to do so by their physician.⁴ The family doctor may be the professional of choice.⁵ He or she needs to be comfortable with the subject. Nearly four fifths of gynaecologists in Wilbers and colleagues' study thought that more attention should be paid to sexuality during training.¹ Brief intensive exposure to sexual issues at undergraduate level has been shown to alter attitudes to sexuality favourably and encourage greater awareness.⁶ Problems of sexual dysfunction can often be helped without a great deal of extra training and should be addressed by all practitioners during undergraduate and postgraduate training.

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Site of injection for vaccination

EDITOR,—I agree with Mark Henley that BCG vaccination above the deltoid insertion should be avoided.¹ He is, however, incorrect in stating that the only vaccination for which a specific site on the upper arm is recommended is rabies. It is also recommended for hepatitis B vaccine. Both the Joint Committee on Vaccination and Immunisation in the United Kingdom and the Immunisation Practices Advisory Committee in the United States recommend that, although the anterolateral thigh is the preferred site for infants, hepatitis B vaccine should be given into the deltoid muscle in adults.^{2,3} In particular, the buttock must not be used: it is associated with a suboptimal response, probably because of injection into subcutaneous fat rather than into muscle.⁴ Injection into the thigh might prove unsatisfactory for the same reason, especially in overweight adults.

Vaccination of health care workers against

hepatitis B virus is already fraught with difficulties. A good response (>100 mU antibodies to hepatitis B surface antigen/ml) is achieved in only 76.4% of adults and is less likely with increasing age; the vaccine is expensive, and uptake among health service workers is low.⁶ These problems must not be compounded by use of an inappropriate site of injection.

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Too deep or not deep enough?

EDITOR,—The 11 July issue of the *BMJ* makes intriguing reading, not least the correspondence column. Richard Park and Peter R Mills are upset that critics "did not read our study more carefully,"¹ while Ian Forgacs suggests that another critic "may have read our editorial rather too closely."² In the news section Linda Beecham announces the launch of the *Student BMJ*; one of its aims is to encourage the reading of scientific papers.³ Perhaps the *Student BMJ*'s recommendations for the required depth of study per article should be shared with the *BMJ*'s readers.

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Outcome in the chronic fatigue syndrome

EDITOR,—Michael Sharpe and colleagues' paper confirms what many clinicians have long suspected—namely, that the prognosis for those with a chronic fatigue syndrome who reach specialist care is poor.¹ The paper also suggests that membership of a self help organisation is associated with a poor outcome. Although the authors emphasise that this association is not necessarily causal, I fear that the self help organisations may interpret this as another attack on their credibility, which will further sour relations between the organisations and the profession.

What are the possible explanations for these disturbing findings? Sharpe and colleagues suggest that patients' beliefs are an important mediator of disability, a view I share.² An article written by a sufferer illustrates how this might happen: "These living viruses are erratic and unpredictable. The prickly-edged ones pierce their way into the body cells. If disturbed by the patient's activity they become as aggressive as a disturbed wasps' nest, and can be felt giving needle-like jabs (or

stimulating the nerves to do so)."³ It is easy to understand how such beliefs, regardless of their scientific accuracy, amplify disability.

The situation is rendered more tragic as it now seems that the evidence on which these beliefs (that persistence of enteroviruses in muscles is the cause of undoubtedly genuine symptoms) is based is less than convincing. Previous work on enteroviral serology is now known to be unreliable,⁴ as is the finding of persistent enteroviral antigenaemia.⁵ Most importantly, it seems increasingly unlikely that this condition results from any neuromuscular disorder, viral or otherwise.⁶ I hope that this more optimistic research will be publicised with the same vigour that greeted previous findings.

Sharpe and colleagues' findings of a poor prognosis should cause all those who advise patients with the chronic fatigue syndrome to pause for thought and perhaps discard cherished beliefs. Members of the medical profession should also rethink their attitudes towards sufferers as, clearly, neither the profession nor the self help organisations are effective at relieving disability.

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EDITOR,—Michael Sharpe and colleagues' follow up study of 177 patients with chronic fatigue of uncertain origin raises several important unanswered questions, which require further investigation.¹ Factors such as a belief that their illness followed an infection, intolerance to alcohol, and membership of a support group for patients with myalgic encephalomyelitis were all associated with an adverse prognosis. Could it be that the authors had identified patients belonging to a distinct postinfectious subgroup as many doctors maintain they do? Clearly, if this is the case future studies of this nature will have to include more objective analysis of persisting viral infection (for example, analysis of muscle biopsy specimens with the polymerase chain reaction rather than tests for VP1 antigen); immune function (for example, function of natural killer cells rather than white cell counts); and hypothalamic-pituitary-axis activity (for example, up regulation of serotonin-1 receptors and basal cortisol concentrations) to see if there are characteristic abnormalities that distinguish the postinfectious subgroup.

The high incidence of intolerance to alcohol is noted as intriguing, but from personal experience, as well as from seeing many patients with a classic postinfectious fatigue syndrome, I regard this observation as an important diagnostic feature. In these patients even small amounts of alcohol cause a further deterioration in cognitive function, and I suggest that a physiological explanation may lie in the fact that alcohol increases the concentration of the neurotransmitter γ -aminobutyric acid, which in turn reduces the availability of calcium ions and hence depresses brain function still further.²

The observation that four of 55 patients had greatly improved, and a further 13 were worse, as a result of antidepressant treatment also brings into question Sharpe's recent conclusion "that such patients may be suffering from a depressive

illness, of which physical fatigue is a somatic manifestation."³ Although these drugs clearly have a role in patients with coexistent depression, a much larger survey of 336 patients found that, overall, they were no more effective than therapeutic nonsense such as a regimen to eliminate candida.⁴

The problem with any kind of research into the chronic fatigue syndrome is that, like backache, it covers a large heterogeneous group of patients in whom physical, psychological, and social factors may be interacting. Researchers should therefore not be surprised to find that the outcome varies considerably when the aetiology is not more clearly defined.

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EDITOR,—Michael Sharpe and colleagues report that most patients with the chronic fatigue syndrome rate contact with medical services as unhelpful or only slightly helpful.¹ Many sufferers turn to alternative health care, again with varied success. Such dissatisfaction with medical care is well documented,² and self help organisations flourish to provide the support, advice, and education that is not, or cannot be, provided by the medical profession; they potentially fulfil an important role.

The authors conclude that for patients with the chronic fatigue syndrome membership of a self help organisation is associated with a poorer outcome (although whether members were more functionally impaired at the outset is not known). Adopting coping strategies, particularly with regard to exercise and "stress," and a belief in the persistence of a viral infection are also associated with continuing disability.

Unfortunately, such advice continues to be offered to patients with the syndrome, particularly by self help organisations. It is to be hoped that all those caring for patients will take note of Sharpe and colleagues' conclusions. Work with fatigued patients in primary care (E McDonald *et al*, paper in preparation) suggests that general practitioners have a central role in preventing the longer term secondary disability described by the authors—by acknowledging the distress caused by fatigue, limiting investigations and referrals to specialist centres, prescribing antidepressants when appropriate, and encouraging maintenance of activities. The patients in Sharpe and colleagues' study were receiving secondary care, and possibly by then beliefs and attitudes to physical symptoms are already engrained.

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Dangers of aspirin before cardiac surgery

EDITOR,—In the final paragraph of his editorial Stuart M Cobbe states, "The outcomes of ISIS-3 and GISSI-2 have resulted in a policy of no change and a sigh of relief from most British doctors and