government is not prepared to provide adequate funds for the training of future social workers (21 May, p 1475).

It is generally agreed that three years' basic training is necessary in place of the present one and two year courses. A little over £30m would provide for this, and the derisory offer of £1m can do no more than marginally improve the existing courses.

Social workers are increasingly expected to take serious decisions—for example, in child abuse and Mental Health Act cases—and it will be difficult for them to do so satisfactorily if they have been inadequately trained. At a time when there are moves towards providing more care in the community and relying more on social workers it is particularly regrettable that they will continue to be poorly trained.

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The Biopsy cut procedure for renal biopsies

SIR,—The Biopsy cut procedure for ultrasound guided biopsy has been used in our hospital for over 18 months, with successful biopsy specimens being taken of 265 kidneys (148 in transplant recipients) and of other abdominal viscera in 119 patients. We agree with Dr J C Mackenzie and others (16 April, p 1128) on its value and present our experience of 64 consecutive native renal biopsies in adult patients and 148 biopsies of renal transplants.

The transplant biopsy specimens were taken with an 18 gauge needle (14 gauge in 10 procedures) and those from native kidneys with a 14 gauge needle (18 gauge in 16 procedures) by a radiologist (HI) or one of three other doctors, who were assisted with the ultrasound imaging by a radiographer.¹ All of the transplant biopsies resulted in adequate tissue for a histological diagnosis with no complications other than macroscopic haematuria for less than 24 hours in one patient. Fifty nine of the native kidney biopsies performed by non-radiologists were successful at the first attempt, with an average of 12 glomeruli being obtained from an average of 2.7 passes for each patient. The procedure had to be abandoned in one patient who became agitated, and in the remaining four failures biopsy specimens were obtained by the radiologist.

There were complications in four patients. Macroscopic haematuria occurred in three and palpable perirenal haematoma in one. None required transfusion. The four failures occurred during the first 20 procedures attempted by each operator. In one the failure was because the kidney was small and in another because of the need for biopsy in a lateral position. At least six patients would not have been considered for conventional closed biopsy, three because of small kidney size, one because of bilateral lower pole cysts, and two because of the presence of a single functioning kidney.

Two situations which sometimes cause difficulty have become apparent. In obese patients it may be difficult to identify the needle tip as it approaches the kidney surface, but displacement of the kidney can usually be observed. Recoil of the needle may occur if the capsule is fibrotic, but this can be avoided by exerting additional pressure when the gun is triggered.

The number of glomeruli obtained from each procedure was disappointing, but all needle passes have been included in the figures and full cores were not always obtained. Nevertheless, we think that this technique has advantages over conven-

tional biopsy techniques. It is safer because of the accurate placement of the needle in the lower pole of the kidney under vision. It is more likely to be successful when the kidney is small or mobile or the capsule thickened, and it is quicker. The disadvantage of expense can be minimised by reuse (once) of the needles, which has been our practice for the past 18 months without problem. After initial instruction from a radiologist and with subsequent support from an experienced radiographer a non-radiologist will become confident and consistent with the use of the Biopsy device under ultrasound guidance after five to 10 procedures. This would be unlikely with conventional techniques.

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1 Ubhi CS, Irving HC, Guillou PJ, *et al*. A new technique for a renal allograft biopsy. *Br J Radiol* 1987;60:599-600.

After the horror

SIR,—Professor Beverley Raphael and Dr Warwick Middleton (23 April, p 1142) are uncertain why some people are more vulnerable to severe trauma than others. As they mention, the degree of exposure to the threat of trauma is probably most important—it accounted for 60% of the variance in vulnerability to post-traumatic stress disorder after a night club fire.¹ The degree of exposure, however, contains a number of different variables: in Vietnam veterans the intensity of exposure to atrocities² and length of exposure to combat were important, and other variables not specific to the trauma, such as isolation, boredom, poor diet, physical discomfort, and exhaustion, may all influence the development of post-traumatic stress disorder.

In some studies personal factors preceding the trauma have proved to be more important than the severity of the trauma itself. In a group of Australian fire fighters no association was found between the intensity of exposure or perception of threat and the development of post-traumatic stress disorder, but personality factors of introversion and neuroticism were predisposing factors.³ Other predisposing factors include a family or personal history of psychiatric disorder and a history of a disturbed childhood environment.^{4,6}

The importance of the social context in determining the development and natural course of post-traumatic stress disorder is often underrated. Environmental conditions may interact with personal coping strategies for dealing with the traumatic event. After a cyclone group cohesiveness and feelings of community tended to delay the manifestation of post-traumatic stress disorder, but realisation of losses, family needs, and continued habitation in damaged homes acted as reminders and reinforcers.⁷ Social influences may also modify the symptom pattern. Different patterns of symptoms have been observed in Israeli combat veterans and American Vietnam veterans, and Bleich *et al* speculated that these might be related to the more supportive public attitude to the military and its casualties in Israel.⁸

What is still uncertain is whether post-traumatic stress disorder is an independent psychiatric disorder or a mélange of anxiety state, depressive illness, and phobic disorder. Further examination of its aetiology, particularly taking into account the interaction of social and personal factors, may clarify this. The identification of general vulnerability to post-traumatic stress disorder

might also help in targeting scarce therapeutic resources after massive trauma.

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Nurses' pay

SIR,—While I share Dr Tony Delamothe's enthusiasm in congratulating the nurses' pay review body (14 May, p 1344) I question his assertion that the problems of implementation have been exaggerated. Implementation will be far from simple and is the key issue concerning the success or otherwise of the recommendations.

The Department of Health and Social Security has yet to publish complete guidelines about the criteria for regrading. The media suggested that nurses would be regraded according to their personal experience, postbasic qualifications, and clinical responsibilities, and an initial study of the recommendations supports this view. Unfortunately it is not so straightforward.

Nurse managers are already indicating that there is insufficient funding to finance this approach, and most staff will be regraded at the lowest scale for their grade irrespective of their experience and postbasic qualifications. Only a limited number of nurses in certain units who have considerable clinical or management responsibilities in addition to experience and postbasic qualifications are expected to be on a higher grade.

The profession is to be kept waiting until October. A lengthy appeals procedure will probably follow, which, in the present economic climate, will have little chance of success. It is vital that the recommendations are implemented with sensitivity, participation, and negotiation by nurse managers and doctors. Otherwise, they may cause more harm to an already demoralised profession.

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Treatment for mild hyperparathyroidism

SIR,—We agree with Dr John C Stevenson and Mr John A Lynn (9 April, p 1016), who recommend parathyroidectomy for all patients with asymptomatic primary hyperparathyroidism, especially if an experienced surgeon performs the exploration. This is particularly important because parathyroidectomy can eventually reduce the increased risk of death from cardiovascular disease.¹ Among the reasons for parathyroidectomy is an increased risk of bone loss, which may have devastating