status, cited the welfare of their children as a prime reason for staying in an abusive relationship.

Parental separation is considered a risk factor for poor mental health in the offspring. Therefore parents staying together in marriage may protect their children from mental health problems. However, in our study children of 31% of the victims had witnessed the abuse. It has been demonstrated that emotional abuse in childhood has a major impact on adult mental health (Edwards *et al*, 2003). Kumar *et al* found that 56% of women who had been abused had poor mental health. Since parental mental disorder has been shown to be associated with psychological problems in the offspring (Rutter, 1966), it is doubtful whether staying in an abusive marriage is beneficial for the children.

Studies in developing countries repeatedly confirm that domestic violence is a problem that cannot be ignored and will significantly affect the mental health of future generations. We appreciate the efforts of Kumar *et al* in highlighting this issue and we consider the time has come to prevent this form of abuse in developing countries.

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Epidemiological approach to predicting psychiatric risk in the military

The warlike events resulting from terrorism in London on 7 July 2005 have again shown the importance of enhancing human resilience and give special relevance to June's issue of the *Journal*. In a marvellous overview, Professor Wessely (2005) gave us his thoughts concerning psychological trauma, modern psychiatric trauma concepts, and the emergence of new syndromes, especially in military settings.

Contrary to Professor Wessely, we are convinced that longitudinal selection provides considerable advantages for psychiatric risk management. Despite the unsatisfactory American experience with personality testing during the Second World War (Jones *et al*, 2003) our main field of activities is cohort-based psychometric screening and prediction models. In 2002, the Swiss Armed Forces assigned us to investigate new methods to predict psychiatric disorders in servicemen. At first we were sceptical that such a task could be fulfilled. However, we found prediction models to forecast outcome in emergency patients in the medical literature (Tuhrim *et al*, 1988). Furthermore, personality seemed to play some part in the outcome of somatic disorders (Eysenck, 1988) and suicide seemed predictable from demographic variables (Holinger *et al*, 1988). Consequently we investigated how these techniques could be transferred to psychiatry.

In a small preliminary (2002) study we screened 3000 recruits on their first day of basic training and followed their medical records for psychiatric problems. Based on clinical–epidemiological knowledge, logistic regression helped us to create a robust multivariable model. Since 2003 the model has been used by the Swiss Armed Forces for recruitment. The model compares each conscript with about 30 000 servicemen. As a result, subsequent psychiatric discharge on the grounds of receiving an ICD–10 (World Health Organization, 1992) diagnosis was significantly lowered by a factor of 3 (or 72%) compared with unscreened recruits. The personality trait of the conscripts did not have any impact.

We are convinced that our prediction model can be successfully adapted to any military service model and operational setting. Therefore, we believe it is too early to bid farewell to psychiatric screening systems in medical risk management.

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Tuhrim, S., Dambrosia, J. M., Price, T. R., et al (1988) Prediction of intracerebral hemorrhage survival. *Annals of Neurology*, **24**, 258–263.

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Author's reply: I thank Dr Vetter for his cordial letter. The question at issue is not whether or not it is possible to create a statistical model that can predict psychiatric breakdown in military recruits – that is certainly possible, as the experiences of the Second World War psychiatrists showed. The question is with what accuracy can one make such a prediction and what are the consequences for those both correctly identified and, even more importantly, those who have been incorrectly identified (the false positives). Dr Vetter does not provide sufficient information for us to make that judgement. What is needed is the sensitivity, specificity and most importantly the positive predictive value of whatever collection of variables he and his colleagues are using to determine the risk of future illness. It is this statistic that enables us to assess the utility of the proposed model.

Furthermore, we do not know what were the consequences of being labelled as at risk of psychiatric breakdown. Were these people denied military service? Switzerland is one of the increasingly few countries that still has compulsory military service. Serving in the Armed Forces is a fundamental part of the life of every Swiss citizen and enables a person to form social networks that operate for many years. Are people disadvantaged from being denied that opportunity? Given that the Swiss are also famed for their neutrality, the fall in psychiatric morbidity as a result of screening is not likely to be because those denied military service are not exposed to the risks of the battlefield. Instead it may be that their subsequent breakdown merely happens in another sector of Swiss life. Without data from a randomised controlled

trial, it is impossible to decide whether any public health benefit has resulted from introducing psychiatric screening. Given the weakness of the individual predictor variables, the timing of screening (at the end of adolescence) and the fact that to date no programme of psychiatric screening for events that have yet to happen (i.e. future breakdown) has been shown to be effective in a randomised controlled trial, I think that I am entitled to stay with my conclusions that psychiatric screening to detect vulnerability to future breakdown remains unproven and continues to have the potential to do more harm than good. Until such evidence is forthcoming, it may be more useful to devote resources to increasing resilience through support and training, and providing better and more acceptable services to help those who do succumb to the rigours of military life.

Declaration of interest

S.W. is Honorary Civilian Advisor in Psychiatry (unpaid) to the British Army Medical Services.

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Is gestational week at birth a predictor of schizophrenia?

We read with great interest the article by Isohanni *et al* (2005), which investigated subtle motor, emotional, cognitive and behavioural abnormalities as predictors of schizophrenia. The authors concluded that these are not useful predictors of illness. However, Isohanni *et al* did not investigate gestational age as a predictor of psychological abnormalities in later life. This has recently been used as a predictor in some cohort studies (Thompson *et al*, 2001; Gale & Martyn, 2004; Wiles *et al*, 2005), and is obstetrically one of the most important predictors of childhood outcomes that are also related to psychological abnormalities in later life (Thompson, 2001; Gale & Martyn, 2004; Cunningham *et al*, 2005). We feel strongly that birth cohort studies of psychological abnormalities in later life should include gestational week at birth. The study of Isohanni *et al* would have benefited from inclusion of this variable.

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Isohanni, M., Lauronen, E., Moilanen, K., et al (2005) Predictors of schizophrenia. Evidence from the Northern Finland 1966 Birth Cohort and other sources. *British Journal of Psychiatry*, **187** (suppl. 48), s4–s7.

Thompson, C., Syddall, H., Rodin, I., et al (2001) Birth weight and the risk of depressive disorder in late life. *British Journal of Psychiatry*, **179**, 450–455.

Wiles, N. J., Peters, T. J., Leon, D. A., et al (2005) Birth weight and psychological distress at age 45–51 years. Results from the Aberdeen Children of the 1950s cohort study. *British Journal of Psychiatry*, **187**, 21–28.

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Authors' reply: We welcome the comments of Shukinami *et al* but it is important to realise the basic theoretical and practical difference between a risk factor and prediction of illness in the premorbid phase. When exposures are common (as are many obstetric complications) but incidence ratios of the illness are not high and outcomes fairly rare (as is schizophrenia), prediction of future disease is difficult.

Abnormal gestational age may or may not be a subtle risk factor for schizophrenia. This has been analysed in a recent meta-analysis (Cannon *et al*, 2002) of eight prospective population-based studies of the association between obstetric complications and schizophrenia. Gestational age under 37 weeks was weakly associated with schizophrenia (odds ratio=1.22, 95% CI 0.90–11.65). The results within the Northern Finland 1966 Birth Cohort were similar (Jones *et al*, 1998).

Our review mentioned abnormal foetal growth and development as a potential risk factor for schizophrenia, as did Cannon *et al*, but the predictive power of abnormal foetal growth is weak as it is a rather common phenomenon. Prediction in this situation is not easy at the population level. Our aim was to describe the best known risk factors for schizophrenia, which is why we did not conduct a detailed analysis of gestational age.

The references included in the letter of Shukinami *et al* suggest that the association of gestational age with other mental disorders may be stronger than for schizophrenia.

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Jones, P. B., Rantakallio, P., Hartikainen, A.-L., et al (1998) Schizophrenia as long-term outcome of pregnancy, delivery, and perinatal complications: a 28-year follow-up of the 1966 North Finland general population birth cohort. *American Journal of Psychiatry*, **155**, 355–364.

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Stigmatisation of people with schizophrenia in Japan

Lee *et al* (2005) reported that in Hong Kong individuals with schizophrenia experience stigma even from family members. This stigma as well as public attitudes towards mental illnesses are serious issues. Mental health professionals are expected to take a supportive stance against such stigmatisation. However, is this always the case?

Practising clinicians may have unconsciously been partly responsible for assigning prejudice to the condition. The terminology routinely used in Japanese clinical practice to describe the characteristics of schizophrenia is somewhat derogatory, e.g. the term *jinkaku suijun no teika* (a decline in the level of personality) is often used to describe a feature ascribed to the larger domain of negative symptoms. The symptoms checklist used in the official mandatory evaluation of long-term in-patients includes one item regarding 'the morbid state of personality'; apathy and abulia are assigned the label of 'residual personality changes', and no other items are assigned to the category of negative symptoms. These descriptions imply that the affected person's personality has decayed and, consequently, that the process is irreversible.

There are other expressions often used in Japanese clinical practice that may encourage prejudice: these include *jigiteki sokai kan* (silly or childish cheerfulness). *kekkan jotai* (a defective state), *hinekure* (perverseness) and *omoi agari* (conceited). The latter two terms were introduced in