of high-income countries in Northern Europe, North America and Oceania'.¹ We aimed to examine the reasons for this particular observation: proving or disproving the above assertion was beyond the scope of our study. Without any pre-assumptions regarding the local validity of the construct of chronic fatigue syndrome, we used this 'etic' construct (originating from high-income Western countries) in Brazil in order to examine whether this foreign concept defines a similar proportion of individuals as 'cases'. We found that, using the current Centers for Disease Control (CDC) case definition of chronic fatigue syndrome, similar proportions of primary care attendees were defined as cases in São Paulo and London. However, Brazilian doctors were unlikely to recognise and/or label such patients as cases.

In a way, we actually used Kleinman's<sup>2</sup> formulation of the category fallacy as a research method in our study. That is, by imposing an alien diagnostic concept where its local validity is untested and unknown, we examined which component of this alien construct is not sanctioned by the local cultural context: the occurrence itself or the recognition/labelling. In Brazil, although unexplained fatigue as formulated by the Western medical community indeed does occur, 'it is not sanctioned as a medical condition worthy of medical treatment, sick leave or sickness benefit, and it may be more likely to be considered as part of everyday adversity and less likely to be recognised as a medical disorder.<sup>1</sup>

Furthermore, although Paralikar *et al* suggest that our paper lacked consideration of the cultural context, we actually discussed and interpreted these findings mostly in light of the sociocultural context. For example, based on previous studies and our own data, we discussed that sociocultural differences such as the degree of medicalisation of the population and awareness of chronic fatigue syndrome among the population and the medical professionals might have contributed to the current findings. <sup>1,3,4</sup>

We have not specifically addressed alternative local formulations for the problems resembling chronic fatigue syndrome in Brazil. However, our case vignette study using a typical history of the syndrome according to the CDC definition revealed that the most common diagnoses given by Brazilian doctors were psychological disorders, hence providing some information regarding the question raised by Paralikar *et al.* In order to address this and other important questions, we have collected qualitative data through in-depth interviews of individuals with chronic fatigue in Brazil and these data are currently being analysed.

We agree with Paralikar *et al* that the pattern of recognition and labelling observed in Brazil is not a failing, since this pattern is probably due to the sociocultural context rather than to medical incompetence. Indeed, we never suggested it was a failure.

Finally, the study by de Fatima de Marinho de Souza *et al*<sup>5</sup> actually used the same questionnaire as our study: the Chalder Fatigue Questionnaire. We also used a more inclusive concept of chronic fatigue as operationalised by this questionnaire, namely unexplained chronic fatigue, as we additionally screened for medical causes. The prevalence of unexplained chronic fatigue was similar in the two settings.

- 1 Cho HJ, Menezes PR, Hotopf M, Bhugra D, Wessely S. Comparative epidemiology of chronic fatigue syndrome in Brazilian and British primary care: prevalence and recognition. *Br J Psychiatry* 2009; **194**: 117–22.
- 2 Kleinman A. Depression, somatization, and the new cross-cultural psychiatry. Soc Sci Med 1977: 11: 3-10.
- 3 Cho HJ, Bhugra D, Wessely S. 'Physical or psychological?' a comparative study of causal attribution for chronic fatigue in Brazilian and British primary care patients. Acta Psychiatr Scand 2008; 118: 34–41.
- 4 Cho HJ, Menezes PR, Bhugra D, Wessely S. The awareness of chronic fatigue syndrome: a comparative study in Brazil and the United Kingdom. J Psychosom Res 2008; 64: 351–5.

de Fatima Marinho de Souza M, Messing K, Menezes PR, Cho HJ. Chronic fatigue among bank workers in Brazil. Occup Med (Lond) 2002; 52: 187–94

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## Differentiating spiritual from psychotic experiences

Stein<sup>1</sup> raises an interesting and important question – that of differential diagnosis between spiritual experiences and psychotic disorders with religious content – when he shows that Ezekiel, as described in the Old Testament, has experiences that might be interpreted as first-rank symptoms. In addition to the religious implications of making such a diagnosis for the prophet (and possibly other spiritual leaders), there are critical implications for the evaluation and conduct of people that seek our clinical care with similar experiences.

We have conducted research on the relationship between spiritual experiences and psychotic and/or dissociative symptoms. A sample of spiritist mediums in São Paulo, Brazil, reported on average four first-rank symptoms, the same number as Ezekiel. However, the number of symptoms was not correlated to other markers of mental disorders such as scores on the Social Adjustment Scale–Self-Report (SAS–SR), Self-Reporting Psychiatric Screening Questionnaire (SRQ), and history of childhood abuse. Despite showing a high level of what could be interpreted as psychotic and/or dissociative symptoms, the total sample of 115 mediums had a high socioeducational level, a low prevalence of mental disorders and were socially well adjusted.<sup>2,3</sup>

There is an increasing literature showing a high prevalence of psychotic and dissociative symptoms in the general population. However, most of our knowledge of those experiences is based on clinical, often hospitalised, samples. Those and other studies indicate the necessity of being cautious when analysing the clinical significance of anomalous experiences emerging in non-clinical contexts, especially since our knowledge about these experiences is based on clinical samples. It seems that these psychotic or dissociative experiences are not necessarily symptoms of mental disorders. (Similarly, certain medical symptoms such as shortness of breath and tachycardia may be pathological in some circumstances and physiological in others.)

Certain additional features may suggest a non-pathological basis for the experience: lack of suffering or functional impairment, compatibility with the patient's cultural background, absence of comorbidities, control over the experience, and personal growth over time. These criteria are useful pointers, but there is a lack of well-controlled studies.<sup>4</sup>

Experiences like those of Ezekiel have had an important role in the Greek, Jewish and Christian roots of Western society, and in our time they are prevalent in spiritual groups such as those related to spiritism, channelling, Pentecostalism and the Catholic charismatic movement.

Research to clarify our understanding of this aspect of human experience will not only enlarge our knowledge of human nature but also improve the cultural sensitivity and effectiveness of our clinical practice.

1 Stein G. Did Ezekiel have first-rank symptoms? Psychiatry in the Old Testament. Br J Psychiatry 2009; 194: 551.

- 2 Moreira-Almeida A, Neto FL, Cardeña E. Comparison of Brazilian spiritist mediumship and dissociative identity disorder. J Nerv Ment Dis 2008; 196: 420–4.
- 3 Moreira-Almeida A, Lotufo Neto F, Greyson B. Dissociative and psychotic experiences in Brazilian spiritist mediums. *Psychother Psychosom* 2007; 76: 57–8.
- 4 Menezes Junior A, Moreira-Almeida A. Differential diagnosis between spiritual experiences and mental disorders of religious content. *Rev Psiquiatr Clin* 2009; 36: 75–82.

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**Author's reply**: Professor Moreira-Almeida's study showing that Brazilian spiritist mediums who are not suffering from any current mental disorder may have a high prevalence of first-rank symptoms is an important addition to the debate on just how specific/non-specific such symptoms are to the diagnosis of schizophrenia. In this light, making any judgement about a prophet such as Ezekiel who lived more than 2500 years ago and basing it on only a few verses from the Book of Ezekiel (which many scholars believe he wrote himself) would seem at best to be a highly dubious exercise. Nevertheless, in the setting of a mental illness, particularly a psychotic episode, the presence of first-rank

symptoms usually does point to a diagnosis of schizophrenia and in this context may have a helpful discriminating function.

However, I believe that in Ezekiel's case these were genuine first-rank symptoms of schizophrenia. This is because there is other corroborative evidence that he suffered from mental illness. Thus there is good evidence of two catatonic episodes, one lasting for 340 days and a second shorter period lasting 40 days, and also that he had a variety of different types of auditory hallucinations as well as several visions. Although any one of these phenomena taken separately can be explained away as being due to the religious experiences in a devout person, the combination of having first-rank symptoms, catatonia, auditory hallucinations, as well as probable visual hallucinations all of a schizophrenic type, can only really be explained by the individual actually having schizophrenia. Perhaps it would have been more coherent to have written a single article on all aspects of Ezekiel's illness, but because of the space restrictions of the Journal's fillers, Ezekiel's phenomenology cannot be revealed to readers all in one go, only as several smaller items. Interested readers should therefore watch this space and read the forthcoming fillers!

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## **Corrections**

Dissecting the phenotype in genome-wide association studies of psychiatric illness. *BJP*, **195**, 97–99. The ninth member of the Cross-Disorder Phenotype Group is Thomas G. Schulze (the middle initial was omitted from the original publication).

Impact of childhood exposure to a natural disaster on adult mental health: 20-year longitudinal follow-up study. *BJP*, **195**, 142–148. Table 3 (p. 145), columns 2 and 3: the values for PTSD current among bushfire survivors with PTSD symptoms arising from the 1983 bushfires are: 3 (0.9%). These values were erroneously reported as zero in the original publication.

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