ders. During an ASC one can observe all described psychopathology without psychiatric disease because a reflexive and integrative psychological structure ("hidden observer") remains and gives unity to the experience. These mental states should not be considered pathological unless there are unsufficient social or cultural structures to accept them or are the main way of coping with daily life. ASC also permit an understanding of ecstatic experiences, placebo effect and parapsychological phenomena.

## TOMORROW'S DOCTORS: HAS THE NEW CURRICULUM CHANGED ATTITUDES TO PSYCHIATRY?

Swaran P. Singh, Helen Baxter, Penny Standen <sup>1</sup>, Conor Duggan. Academic Department of Psychiatry, University of Nottingham; <sup>1</sup> Department of Learning Disabilities, University of Nottingham

Aims: The GMC's 'Tomorrow's Doctors' has altered undergraduate teaching with shorter attachments and more interactive learning. We studied the impact of this change in teaching on the attitudes of medical students to psychiatry and mental illness.

Method: Two groups of fourth year medical students from the old (n = 46) and the new (n = 76) curricula were asked to complete two questionnaires (Attitudes to Psychiatry-ATP and Attitudes to Mental Illness-AMI) on the first and last day of their psychiatric attachment.

Results: 110 (90%) students completed both the questionnaires. There was a significant increase in positive attitudes towards psychiatry and mental illness in both groups with no significant difference between the groups. Attitudes towards psychiatric treatments and the ability of the mentally ill to live independently showed the greatest change. The students' intention to choose psychiatry as one of the career options increased significantly following the attachment.

Conclusions: Medical students from the old and new curricula showed similar positive changes to psychiatry following their attach-

## THE PSYCHOLOGICAL MORBIDITY ASSOCIATED WITH HEPATITIS C IN WOMEN WHO RECEIVED ANTI-D IMMUNOGLOBULIN

D. Sloan, D. Hickey, G. Kelly, N. Walsh. Department of Psychiatry, St. Vincent's Hospital and University College Dublin, Ireland

Objectives: In March 1994 a Hepatitis C virus (HCV) outbreak occurred in Ireland, which was caused by contaminated blood product anti D immunoglobulin. This study aimed to establish the prevalence of psychological morbidity in females with HCV.

Methods: Women (n = 60 consecutively referred to the Liver Clinic for investigation of HCV who gave informed consent were administered a series of 4 questionnaires: The 28-item General Health Questionnaire, The Revised Impact of Event Scale (RIES), the Health Status Questionnaire (HSQ). Questionnaires were readministered at 3 monthly intervals prospectively for one years. Data was also collected regarding the womens' physical health, Liver biopsy results, Liver function tests, and the need for treatment.

Summary of Results: Women who achieved caseness using the GHQ were significantly associated with Liver damage (p = 0.01) and subjective measures of illhealth (HSQ) (p = 0.000). High scores on the RIES were significantly associated with a past psychiatric history (p = 0.02), Interferon treatment (p = 0.02), and Social problems as a measured by the SPQ. (p = 0.002)

Conclusions: There is an increased level of psychological morbidity among this cohort. Psychological morbidity was significantly increased in those with a past history of psychiatric illness, and those with a greater degree of Physical ill-health.

## EEG IN GILLES DE LA TOURETTE SYNDROME SHOWS ABNORMAL TOPOGRAPHY OF BRAIN ELECTRIC FIELDS

A. Stevens, W. Günther, M. Bartels, N. Müller. Dept. of Psychiatry, University of Tübingen, Osianderstr. 22, D-72076 Tübingen

Scalp EEGs of 13 patients with Gilles de la Tourette syndrome (GTS) and 25 matched controls were studied during rest and during a simple and a complex motor task. The data were evaluated by adaptive segmentation, which describes the stability, topographic type and sequence of brain electric field configurations in continuous EEG. The average duration of the brain electric microstates, their temporal stability and EEG carrier frequency was not different from normal controls. However, GTS patients showed an abnormal frequency of fields with a right-frontal/left-posterior orientation. The abnormal fields did not disappear when simple or complex motor tasks were performed. Motor-related activity was contrasted with two auditory tasks. All tasks led to characteristic temporal and topographic patterns of activity, and changes occurred in parallel in both GTS patients and

We conclude that GTS patients EEG show abnormal brain electric patterns, but these are probably not confined to primary or supplementary cortical sites.

## ARSONISTS IN MAXIMUM SECURITY: MENTAL STATE AT TIME OF FIRESETTING AND RELATIONSHIP BETWEEN MENTAL DISORDER AND PATTERN OF BEHAVIOUR

M. Swinton, A. Ahmed. Department of Psychiatry, Royal Liverpool University Hospital, Liverpool, L7 8XP, UK; Ashworth Hospital, Liverpool, L31 1HW, UK

The utility of the concept of arsonists is unclear. In forensic psychiatric settings there is no equivalent concept for violent offenders who are generally assessed and treated in terms of their underlying mental disorders. This study seeks to establish similarities and differences between arsonists in terms of their mental disorders.

79 arsonists were identified in a Special Hospital. 68 had a clinical interview which included completion of the Functional Assessment Schedule (a rating of affects, cognitions and environmental stimuli present prior to firesetting and of the changes consequent on firesetting) and the Fire Interest Rating Scale. Subjects were compared by category of mental disorder and by gender.

Mentally III (MI) arsonists and Psychopathic Disorder (PD) arsonists reported similar symptoms at the time of firesetting; typically they reported that setting fires relieved affective symptoms. The major difference was in the time course of their behaviour. The first recorded arson conviction for MI patients occurred 7.8 years later than for PD patients and this paralleled the age of first recorded psychiatric contact. In terms of current symptoms and behaviours MI men, MI women and PD men were similar. PD women had a distinct group of current symptoms and behaviours. They showed high levels of eating disorder symptoms and self injury and also had a strong history of trauma in childhood.

Treatment of arsonists needs to include helping them find less destructive ways of relieving affective symptoms in addition to treatment of their underlying disorders. In PD women who set fires; eating disorder and self injury may be a useful risk marker of continuing arson risk.