PSYCHIATRIC EPIDEMIOLOGY AND THE ROLE OF SPATIAL INFORMATION SYSTEMS

L. Morad, M. Morad. *Department of Psychiatry, Health Waikato, Hamilton, New Zealand; Department of Geography, University of Waikato, Hamilton, New Zealand*

Spatial (geographic) information systems have an important role in psychiatric epidemiology. Drawing on a New Zealand case study, this paper will evaluate the contribution of computerised mapping techniques in projecting the geographical distribution of demand for psychiatric services. A review the literature, is followed by a discussion of the methodology used in this research for forecasting demand for psychiatric care. The paper will also highlight the importance of census data for the planning of psychiatric services at regional and district levels.

SLEEP PARAMETERS IN BIPOLAR RAPID CYCLING PATIENTS

S.N. Mosolov. *Federal Scientific Centre of therapy of Mental Disorders, Poteshnaya str. 3, Moscow, Russia, 107258*

There is no systematic polysomnographic studies in bipolar disorder with rapid cycling course. Several studies in restricted number of patients have revealed considerable changes in sleep continuity and architecture, especially in REM sleep. These changes were related to the phase inversion and polarity (Kupfer, Heninger, 1977; Gillin et al., 1977; Wehr, Goodwin, 1983; Welsh, 1986).

The purpose of the study was to compare sleep structure in bipolar affective patients with frequent relapses (or rapid cycling) and with rare relapses as well as normal controls. Four standard scull derivations were used for continuous recording of sleep traces on 16-channel REEGA 2000/ALVAR polygraph. Sleep stages were analysed by 2 independent experts visually within every 30-second epoch and corresponded to the criteria of Rechtchaffen, Kales (1968). Registration was done during 3 consecutive nights. In order to avoid the first night effect (Backeland et al., 1971,) only records of the second and the third nights were analysed. The data were averaged.

Polysomnographic sleep characteristics were studied in patients with bipolar affective disorders with rapid cycling (N = 7), having four and more episodes a year, in patients with rare episodes (N = 10), and in healthy volunteers (N = 8). All patients were in remission, i.e. in the interval free from affective symptoms. Total scores in Hamilton-depression scale or Bech-Rafaelsen scale at the moment of registration were less than 6 points. Patients had no medication.

Sleep parameters in the first group were characterized by a shortened REM latency period — less than 65 min., a diminished slow wave sleep, especially in the first cycle, its domination in the second cycle, disordered ultradian distribution of REM-sleep with its preponderance shifted to the first hours of sleep, worse sleep continuity parameters (more frequent awakenings during the night, especially early awakenings).

No significant difference was revealed between rapid cyclers and patients with relatively rare episodes. The most important sleep parameters of the latter group took a strictly intermediate position between controls and rapid cyclers. This fact allows to speak about just a quantitative difference between the two groups of patients and about their common nosological background. Polysomnographic profile of rapid cycling patients strikingly resembled major (melancholic) depression, though did not coincided with it completely. Contrary to depression a prolonged REM latency period was found along with less obvious slow wave sleep supression, preponderance of the second stage and REM sleep with a decreased REM density as well as some other less apparent sleep continuity characteristics which pointed to a rather specific profile in rapid cyclers. The findings can be of diagnostic and predictive value.

SOME ECONOMIC PROBLEMS OF CZECH PSYCHIATRY IN THE PERIOD OF AFTERCOMMUNISTIC HEALTH CARE SYSTEM TRANSFORMING

B. Mrňa. *University Clinic for Psychiatry, I.P. Pavlova 12, 775 20 Olomouc, CZ*

In the Czech republic is coming to a transformation from the former socialistic health care to a functioning system. It concern about psychiatry too, which dispose, similar as other medical branches, with a great number of beds. They are tendencies to reduce them, like as staffs to a number nearly other west countries, while the government votes meanly an economic pressure.

However the health care system makes all purchases for free marked prices, the fees from Insurances are strong fixed and it is not any possibility to entry something over in account and in this way to check the really price.

For 1 inpatient the treatment is paid by Insurance through first 17 days by 479 points for each day (that means 254 CzK for 1 day) and for following 35 days by 279 points (that means 148 CzK for 1 day). To above described fees are 35 CzK for medicaments and 114 CzK for other special medical material.

Till October 1955 it was a common rate 279 points for 1 day. The really charge (the nearly same in each University clinic) makes 550.00 CzK for day. Over the charges above we can count to a basic outfinding (by the first admission) that means 335 points = 77.5 CzK. While the outfinding by dismissal the patient or consulting is evaluated by 168 points (89 CzK). The individual psychotherapy provided by psychiatrist in a duration of 30 minutes makes 159 points (87 CzK). Psychotherapy in a group in the number of 8 patients in duration of 30 min. is paid by 61 points (32 CzK) for 1 patient. Psychotherapy for a greater group is paid by 6 points for each patient.

Similar values we can find in the psychotherapy by psychologist or in psychologic outfinding.

The value of a point was origin fixed on 0.52 CzK. After three years and 30% inflation it increased to 0.53 CzK. (The international exchange is 41.1 CzK for 1 GBP. The salary for a doctor is in the Czech republic from 6 to 11 thousand CzK gross).

So settled values include performing by nurses, doctor's visits, control outfindings and so one, that means all common care management.

Obviously through this circumstances all psychiatric University clinics became similar into increasing debts.

The author against discuss various possibilities and aspects for solving above described situation, because the transforming is important.

REFLEXE DER KUTANEN MIKROZIRKULATION BEI PATIENTEN UNTER MONOTHERAPIE MIT AMITRIPTYLIN, BZW. MIT FLUOXETIN

Michael Mück-Weymann, Thomas Rechlin. *Abteilung für Psychosomatische Medizin und Psychotherapie an der Psychiatrischen Universitätsklinik Erlangen, Deutschland*

Einleitung: Eine tiefe Inspiration in den Thorax lösst einen akralen Vasokonstriktionsreflex aus, der mittels Laser-Doppler-Fluxmetrie (LDF-metrie) als kurzdauernde Minderung der Hautdurchblutung in der Fingerkuppe nachweisbar ist. Mittels einer neu definierten "Flux-Halbwertszeit" für den Signalabfall ($\Delta t_{50\%\ down}$) sowie den Wiederanstieg ($\Delta t_{50\%\ up}$) können die Reflexzeiten für Vosokonstriktion und Redilation quantitativ bestimmt werden.

Patienten und Methode: Die kutane Mikrozirkulation wurde bei 30 depressiven Patienten unter Monotherapie mit Amitriptylin (AMI; n = 15), bzw. Fluoxetin (FLU; n = 15), sowie bei 15 unbehandelten Kontrollen (KON) untersucht. Der LDF wurde zunächst

https://doi.org/10.1016/0924-9338(96)89112-7 Published online by Cambridge University Press

für 3 Minuten während Ruheatmung aufgezeichnet. Dann wurden die Patienten/Probanden aufgefordert, einmal tief durchzuatmen; anschliessend wurde für weitere 3 Minuten gemessen.

Ergebnisse: In beiden behandelten Patientengruppen verlief der Abfall des LDF-Signals in ähnlicher Zeit wie bei den Kontrollen. Der Mittelwert der "Flux-Halbwertszeit" des Abfalls war in der Kontrollgruppe unwesentlich kürzer als der Wiederanstieg ($\Delta t_{50\%\ down}$: 3.1 s; $\Delta t_{50\%\ up}$: 4.5 s). Bei den mit Amitriptylin behandelten Patienten war allerdings der Wiederanstieg im Vergleich zu den mit Fluoxetin behandelten Patienten, bzw. zu den Kontrollen signifikant ($p = 0.0007$) verzögert (AMI: $\Delta t_{50\%\ up}$: 12–52 s; FLU: $\Delta t_{50\%\ up}$-: 2–8 s; KON: $\Delta t_{50\%\ up}$: 2–6 s). Mittels einer Diskriminanz-Analyse konnten alle (100%) mit Amitriptylin behandelten Patienten als solche erkannt werden.

Schlussfolgerungen: Der verzögerte Wiederanstieg des LDF, d.h. die prolongierte Redilation, könnte auf (anticholinerge?) Nebenwirkungen von Amitriptylin zurückzuführen sein. Mit unserer Methode können wir nicht unterscheiden, ob es sich dabei um zentrale oder um periphere Effekte handelt. Da es jedoch nach Literaturangaben in der Fingerkuppe keine cholinerge Gefässinnervation gibt, dürften die gezeigten Effekt am ehesten auf zentralnervösen Mechanismen beruhen.

CLINICAL CLASSIFICATIONS OF ANXIETY AND DEPRESSION

J.A. Mullaney. *St. Itas Hospital, Eastern Health Board, Dublin, Ireland*

Objective: To challenge the null hypothesis that the two clinical syndromes of anxiety and depression merge insensibly into each other.

Method: A random hospital population of patient, day and outpatient, (N = 180), with affective disorders (anxiety and depression) were dictomised on the basis of the universal Bipalor Factor derived from Principal Component Analysis. Pure measures of clinical state i.e. anxiety and depression were examined for invariance across the putative diagnostic boundary.

Result: Anxiety was found to be invariant across this 'diagnostic' boundary. In contrast (unlike any other puratative boundaries e.g. age, social class etc) depression was not so.

Conclusions: All affective patients whether depressed or not are anxious. The quality of depression is not coextensive in anxious and depressed patients. A patient either has or has not got depression. A patient with depression is likely to have anxiety in addition. Both categorical and dimensional models fit the data. This result has important implications for classification and psychopharmacological research.

SUICIDE AND DELIBERATE SELF HARM IN MALTA

P. Muscat, J. Cassar, J.C. Scicluna, J.R. Saliba. *Department of Psychiatry, Medical School, G'Mangia, Malta*

The University & Health Departments of Psychiatry entered into a collaborative study to identify:

– The trends for 77 completed suicides over a five period (1990–1994) through a retrospective analysis of data obtained from the Health Department Information Unit.

– The trends for 94 accidental/undetermined deaths (some possibly suicides) through a retrospective analysis of data obtained from the Health Department Information Unit.

– The trends for 962 attempted suicide/deliberate self harm cases presented to Casualty SLH over the period Jan 1990–June 1994 through a retrospective analysis data obtained from the Casualty Registers.

– Seasonal variation — by studying the trends over a 4-year period (Summer 1990–Spring 1994) of a total number of 890 cases that presented with attempted suicides to Casualty.

– A prospective analysis of attempted suicide cases over a one-year research period (July 1993–June 1994). During this period 276 cases were admitted to Casualty with attempted suicide. A total sample of 170 that were eventually referred for psychiatric consultation were analysed in detail to identify trends. This was based on a structured interview which formed part of the initial psychiatric assessment.

The instrument itself provides further information as to the physical intervention, immediate follow-up after 6 weeks from discharge from hospital and whether the patient kept follow-up appointment.

The scope of this exercise was to build a clear profile of the persons attempting suicide in Malta.

It is the aim of the research that the structured interview, which is a comprehensive one, would be modified and eventually developed into a standard tool for assessment and information collection in suicide attempts/deliberate self harm.

Recommendations are made that:

– Such data should be stored in a database for future systematic analysis and research on the subject.

– Specialized services should be set up for those in crisis.

INTRODUCING OPERATIONAL DIAGNOSTIC SYSTEMS INTO GENERAL HEALTH CARE — RESULTS OF THE ICD-10 PRIMARY HEALTH CARE (PHC) STUDY IN GERMAN-SPEAKING COUNTRIES

H. Müssigbrodt, S. Kleinschmidt, A. Schürmann, H.J. Freyberger, H. Dilling. *Department of Psychiatry, Lübeck Medical University, Ratzeburger Allee 160, 23538 Lübeck, Germany*

Epidemiological data show that about 30% of patients attending general health care facilities in Germany suffer from psychological disorders. If those remain undetected or without adequate treatment, they may represent an important cost factor to the health system. To improve the standard of diagnosis and treatment of mentally ill patients in general health care, the World Health Organization (WHO) developed a primary health care version of ICD-10 chapter V for mental and behavioural disorders. The concept of the ICD-10 PHC version is to offer a brief classification scheme linked with management guidelines to general practitioners. The preliminary version was reviewed by our working group for use in German-speaking countries. In addition to the acceptance of the concept the feasibility, suitability, ease of the diagnostic process and interrater-reliability in use of the ICD-10 PHC were assessed in a worldwide WHO field trial. In German-speaking countries 8 centres took part in a standardized programme of training sessions with participation of 107 general practitioners. The analysis of data shows a comparatively high acceptance of the new system and a sufficient interrater-reliability (kappa 72.4–96.1) for the different diagnostic categories. However, as general practitioners in Germany are obliged to classify psychiatric diagnoses on a four-figure level, the ICD-10 PHC version seems to be too much reduced in various aspects compared to the original classification. Therefore diagnostic criteria and treatment guidelines have to be described in more detail for use in German-speaking countries.

PHYSICIANS LIVING WITH DEPRESSION

Michael F. Myers. *Department of Psychiatry, St. Paul's Hospital, 1081 Burrard Street, Vancouver, BC V6Z 1Y6, Canada*

Because depression in doctors is not always recognized by physicians themselves and is not always carefully treated, the Committee on