encompassing household, institutional and homeless samples, on the disability accompanying psychiatric morbidity, particularly in relation to social and economic funding.

Only 39% of adults with a psychiatric disorder are working, compared with 56% of adults with neurotic disorder and 71% of adults with no psychiatric disorder. Compared with the general population, adults with neurosis are twice as likely to be receiving Income Support and four to five times as likely to be on Invalidity Benefit; and adults with psychosis are three times as likely to be receiving Income Support and eight to nine times as likely to be on Invalidity Benefit. The median gross weekly income of people with psychosis or with neurosis is £90, compared to £150 for the general adult population in 1993.

40% of adults with a psychiatric disorder had a difficulty with an activity of daily living, compared to 32% of adults with a neurotic disorder and to 12% of adults with no psychiatric disorder.

THE DEVELOPMENT OF EUROPEAN STANDARDS AND ASSESSMENT INSTRUMENTS FOR PSYCHIATRIC DISABLEMENTS

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Diagnosis is not the sole useful indicator both in clinical practice and psychiatric research as well as in research in health care and the needs of people suffering from mental disorders. The assessment of disablement can be useful in: a) developing better policies for interventions at individual, regional and national level, b) improving the measurement of outcome of mental health care, c) designing optimal management strategies for the mentally ill and d) improving the descriptions of mental disorders. However, although the assessment of psychiatric disablements has been recognized to be of great importance, relevant data are very rarely recorded. Furthermore, there is a lack of common definitions on the concept of disablement. Therefore, very often the data recorded on the assessment of disablement of the mentally ill are very often incomparable. The development of the ICIDH by the WHO in 1980, has been a step forward in this respect and the Council of Europe and individual researchers and agencies have accepted it and promoted its use within Europe. Nevertheless, although a great number of instruments for the assessment of psychiatric disablements has been developed and used in Europe, they are not based on common and agreed definitions such as those provided by the ICIDH. The development of the revised edition of the ICIDH by the WHO, offers a great opportunity for developing common European standards and related assessment instruments for psychiatric disablements. A common European effort for developing culturally sensitive standards and assessment instruments for psychiatric disablements, based on the new international classification of disablements, is urgently needed.

PRACTICAL APPLICATIONS OF ICIDH

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The International Classification of Impairments, Disabilities and Handicaps (ICIDH) was published by the World Health Organization in 1980 as a tool for the classification of the consequences of disease and of their implications for the lives of the individuals.

After 15 years of use, the W.H.O. is undertaking the revision of ICIDH. The Division of Mental Health is charged with coordinating the revision process. The revision process aims to develop a detailed classification system for disablements, which will carry detailed descriptions and clinical guidelines.

The dissemination and application of the ICIDH will be accompanied by important changes in the way impairments, disabilities and handicaps, and the various problems that may arise in each of the three areas are perceived and addressed. It is hoped that the classification will allow a better description and facilitate the assessment of people with disabilities and of their situation within a given physical and social environment.

According to a general principle that applies to the definitions of all the disorders in Chapter V (F) of ICD-10, interference with the performance of social roles, either within the family or with regard to employment, is not used as a diagnostic guideline or criterion. An additional aim of the revision process for ICIDH is to complement the ICD-10 by providing a comprehensive way for assessing the clinical significance of a mental disorder.

The practical implications of the current version and the aims of the future ICIDH will be discussed.

S36. Life events, corticosteroids and cognitive failure

Chairmen: IN Ferrier, DDR Williams

STRESS, CORTICOSTEROIDS AND NEURONAL ACTIVITY: EFFECTS OF EARLY LIFE EXPERIENCE

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A fundamental question in stress research relevant to psychiatry is why life events precipitate brain disorders in some individuals, while others under similar conditions are not affected. To understand these individual differences in susceptibility to stress pathology the role of stress hormones in the interaction between genotype and environment. Genes need to be regulated and corticosteroid hormones secreted after stress are extremely important for this purpose. Genes potentially acting as risk factors for cognitive failure (corticosteroid receptors, apolipoprotein E and amyloid precursor proteins variants) are presently studied in our laboratory in various mouse mutants.

Corticosteroid hormones readily enter the brain and bind to high affinity mineralocorticoid receptors (MR) and lower affinity glucocorticoid receptors (GR) which act as gene transcription factors. Low levels of corticosteroid predominantly occupy MR, while stress levels occupy progressively also GR. MR and GR are abundantly co-localized in neurons of hippocampus, a brain structure involved in regulation of mood and cognition. MR and GR coordinatively control specific gene networks in hippocampus neurons. The gene products are involved in regulation of calcium homeostasis and transmitter responsiveness, which we found to change concomittantly to the steroid effects on behavioural reactivity and cognitive functions.

Recent research in rodents has shown that the corticosteroid tone and the number of hippocampal MR and GR during adulthood are influenced by early life experience. For instance, 3 days' old rats exposed for 24 h to maternal deprivation display as adults hypercorticism and downregulation of GR. The responsiveness to dopamine agonists is increased and the rats appear more susceptible to stereotypic behaviour. In-depth analysis of this phenomenon revealed that the outcome of separation procedures for later activity of the stress system depends on the age and sex of the pup as well as the duration and post-natal time point the deprivation from the mother has occurred.

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Thus, it appears that behavioural experiences in early life permanently affect the stress response system, and the vulnerability to cognitive failure and mood disturbance. These permanent effects are mediated by brain corticosteroid receptors. This finding may open new leads towards neuropharmaceutical intervention in stress system disorders.

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STRESS, CORTICOSTEROIDS AND THE GENESIS OF DEPRESSION

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Abnormalities in the hypothalamic-pituitary-adrenal axis (HPA) have been the most consistently demonstrated biological markers in depressive illness. Numerous other endocrine disturbances have also been described, including blunted clonidine-induced growth hormone release and blunted fenfluramine-induced prolactin release. These abnormalities are generally interpreted in terms of monoaminergic receptor dysfunction. A theory will be presented which suggests that chronic stress, capable of activating the HPA, will in certain susceptible people produce changes in central monoamines. The high level of glucocorticoid receptors on such central neurones is postulated as mediating the alterations. Thus, monoamine abnormalities, rather than being a core aetiological feature of depression, are seen as secondary to HPA overdrive.

DEPRESSION IN LATE LIFE AND THE "GLUCOCORTICOID CASCADE" HYPOTHESIS

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It is well recognised that age modulates hypothalamic-pituitary-adrenal (HPA) axis activity in animals, with advancing age associated with raised corticosteroid levels. Accumulating data suggests the same is likely to be true in humans. If corticosteroids are implicated in the genesis of depression, an age related increase may explain, in part at least, the continued high prevalence of depression in late life despite the declining importance of other well established aetiological factors such as genetics.

Corticosteroids may also play an important role in mediating cognitive impairments, a prominent feature of depression and other conditions associated with raised steroid levels. Cognitive deficits correlate with steroid levels in a number of different disorders, while corticosteroid administration to controls induces impairments in memory and learning. An influential hypothesis suggests this effect on cognition may be via a specific, and potentially toxic, action on hippocampal neurones. The hippocampus inhibits the HPA axis, so any hippocampal damage due to raised steroids would itself elevate steroid levels, potentially leading to a feed-forward loop or "glucocorticoid cascade". Although this hypothesis requires further testing in humans, this presentation will demonstrate that studies of elderly patients with depression and Alzheimer's disease (which is associated with profound hippocampal changes) have started to unravel the intriguing and complex relationship between ageing, HPA axis changes, hippocampal cell loss, depression and cognitive impairments.

THE ROLE OF LIFE EVENTS IN SENILE DEMENTIA

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Dementia sufferers are highly sensitive to changes in their social environment because their impaired memory reduces their capacity to adapt to change. Earlier studies have indicated that relocation can lead to distress and confusion. Our study investigated the hypothesis that recent life events are related both to acute deterioration of senile dementia and to the patient's presentation to services, and that this may relate to life events involving change in routine and environment.

The study was a case-control comparison involving 70 patients with senile dementia admitted to a psychiatric unit. The informants were interviewed about life events in the six months before the patient's admission. The two control groups comprised of 50 dementia sufferers in the community and 50 age/sex matched fit elderly controls from a local general practice list. The principle instruments used were the Geriatric Mental State Schedule and the Bedford College Life Events and Difficulties Schedule. Additional measures to evaluate environment and routine change were developed. There was an excess of independent life events in the admitted dementia group but only when events were selected on the basis of routine and environment change rather than threat. However, in both groups of dementia sufferers severe threat events were strongly associated with depressive symptoms.

The results are interpreted in the context of potential social and neurobiological models of dementia, and in terms of the possible implications for clinical practice.

THE ACTIVITY OF CORTICOTROPIN RELEASING HORMONE (CRH) NEURONS IN THE HUMAN HYPOTHALMUS IN RELATION TO AGING, ALZHEIMER'S DISEASE AND DEPRESSION

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CRH neurons in the human paraventricular nucleus (PVN) are gradually slightly activated during the course of aging, moderately activated in Alzheimer's disease and strongly activated in depressed patients as appears from (i) the number of PVN neurons expressing CRH [1,3], (ii) the number of CRH neurons coexpressing vasopressin [2,3], and (iii) the total amount of CRHmRNA in the PVN [4].

A number of observations is not in agreement with the hypothesis that activation of the hypothalamo-pituitary-adrenal (HPA) axis results in elevated cortisol levels that would be neurotoxic and causal in the pathogenesis of Alzheimer's disease [5]. Recently we found arguments, however, that do suggest increased CRH activity might be causal in the development of depression [4].

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