neuroleptic. The manufacturer was hesitant to introduce the drug, because it lacked an adverse effect!

In 1972, clozapine was introduced in Austria, Switzerland and Germany and, within the next 5 years, in another 30 countries; more than 100,000 patients were treated. 13 double-blind investigations supported Hippius and Stille who, in 1971, confronted the prejudice about the connection between antipsychotic activity and motor effects.

In 1974, psychiatrists in Finland observed 16 cases of agranulocytosis amongst patients being treated with clozapine, eight patients died. Sandoz, the manufacturer of clozapine by that time, wanted to withdraw the product. Fortunately, however, in some countries clozapine remained on the market, where it was available for restricted use, though only with strict supervision of patients, involving regular monitoring of the white blood cells.

Between 1979 and 1988, studies in Scandinavian and German-speaking countries indicated that, under hematological control, the risk of agranulocytosis was tolerable in comparison to the marked benefit in those schizophrenic patients who do not improve under typical neuroleptics or suffer from severe motor symptoms. The study by Kane et al. (1988) confirmed the European experience and led to the introduction of clozapine in the US and UK. Clozapine, still the only "real" atypical neuroleptic on the market, is formally indicated only in therapy-resistant schizophrenia, but many psychiatrists use it successfully in a variety of psychotic patients such as depression, mania or Parkinson's disease.

S64. Eating disorders: needs must

Chairman: J Treasure

SOME ATTEMPTS TO GENERATE OUTCOME MEASURES IN THE TREATMENT OF ANOREXIA NERVOSA

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Relatively little has been written about treatment outcome in anorexia nervosa in terms other than weight gain, eating behaviour and menstrual status. This is even though it has recently been suggested that mortality may vary as much as three or fourfold between different treatments in UK. Meaningful outcome studies must not only reflect patients' own opinions and be comparable with other psychiatric and non-psychiatric conditions, but must be comprehensible to "Purchasers" as well as to various Clinical Health professionals. Our initial pilot study used the SF36 scale in ten new anorexic in-patients and its face validity looked promising. Patients appear to feel that they had made real gains as judged by the "Mental Health" social function, "vitality" physical role, "emotional role" sub tests. We next attempted to assess the possibilities of anthropometric studies (using "bodystat") and psychometric tests (the stroop which is said to be a strong indicator of unconscious eating pathology) and the BITE and EAT 26 (perhaps of conscious eating attitudes).

We are now engaged in a multi-centre Anglo American outcome study (CPC info and PHG info) using the DSM4 Global assessment function with a simultaneous detailed nursing assessment questionnaire and a patient questionnaire. The paper is intended to simply act as a stimulus to discussion and future research.

WEIGHT ASPECTS IN ANOREXIA NERVOSA

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Underweight is a core feature in anorexia nervosa (AN). The recent scientific breakthroughs regarding body weight regulation — among these the cloning of the genes coding for leptin and its receptor — will have a major impact on biologically orientated research of eating disorders. As a first step it is necessary to clinically address weight aspects in AN. For an individual patient these include assessment of

1.) premorbid body weight

2.) the course of the disorder including the minimal weight achieved and

3.) subsequent weight regain.

At the family level lifetime weight histories of family members need to be evaluated. Psychopathological features should be co-assessed in order to detect possible joint regulatory mechanisms. At the biochemical level leptin serum concentrations can be measured in addition to other hormones. Finally, research at the molecular level encompasses both association and linkage studies using genes involved in body weight regulation as candidate genes.

RISK FACTORS FOR EATING DISORDERS: DIFFERENCES IN INCIDENCE RATES IN RELATION TO URBANIZATION AND CULTURE

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Objective: The purpose of this study was to examine the incidence and prevalence of anorexia nervosa (AN) and bulimia nervosa (BN) and to evaluate the impact of differences in age, sex, urbanization and culture.

Method: Four data sources were used: a) a Dutch nationwide network of primary care physicians (1985–1989 records); b) the Dutch psychiatric admissions register (1983–1992 records); c) the Curaçao Psychiatric Case Register (1987–1989 records); and d) the medical records of the Curaçao General Hospital (1987–1989 records). Main outcome measures were one-year period prevalence rates, crude annual incidence rates, and age-adjusted rate ratios.

Results: The point-prevalence among young (15–34-year-old) females was 0.28% for AN and 1% for BN. The crude annual incidence rate of detected cases in Dutch primary care per 100,000 person-years was 8.1 for AN and 11.5 for BN (Am J Psychiatry 1995; 152:1272–1278). For both AN and BN, incidence rates were higher for females than for males, with the highest risk for AN in the group of 15- to 19-year-old females (79.6 per 100,000 women-years), and for BN in the group of 20- to 24-year-old females (82.1 per 100,000 women-years). The incidence of BN was lowest in rural areas, intermediate in urbanized areas, and highest in large cities; no rural-urban differences for AN were found. In line with expectations based on the sociocultural theory for the causation of eating disorders, on Curaçao (Netherlands' Antilles) no patients were registered with BN. However, contrary to expectations, registered cases of AN showed that inhabitants of Curaçao were at risk for AN. For Antillians living in the Netherlands, both AN and BN were found at rates comparable to those for the Dutch.

Conclusions: The incidence rates of eating disorders are higher than previously reported. Young females are at increased risk. Urbanization seems to be a risk factor for BN but not for AN. BN is culture-bound, restricted to western countries, while AN is not.

https://doi.org/10.1016/0924-9338(96)88646-9 Published online by Cambridge University Press