comprise community based services; mainstreaming with already existing mental health services; networking or establishment of self-help groups.

An overview will be provided outlining critically advantages and disadvantages of the different approaches in order to develop recommendations for future services.

### P58.03

Ethnic classification in psychiatric research: are human beings colour-coded?

S.P. Singh. Department of Psychiatry, St George's Hospital Medical School, London, UK

Race and ethnicity are commonly used in medical research to categorise population groups and are usually dichotomised in statistical analysis. However, the subjective and fluid nature of ethnicity makes it difficult to define and measure. Psychiatric research, while focussing on ethnic differences in disease rates, service utilisation etc, has paid little attention to the accuracy and precision of the terms used to delineate different ethnic groups. It has even been argued that science should be 'colour blind'. However, epidemiology is by definition, the study of disease in populations. Variations in rates of disease across and within population groups provide important aetiological clues to our understanding of diseases. In attempts to isolate causative factors in epidemiological research, almost any chosen population group is defined by composite proxy variables, which are heavily confounded. Epidemiological research should endeavour to 'unpack' these, to isolate the underlying shared biological, cultural and social influences of aetiological importance. This lecture reviews the use of ethnicity as a variable in recent psychiatric literature and proposes a series of guiding principles to rectify some methodological limitations in defining ethnicity.

## P58.04

Anxiety disorders related with the acculturation stress

J.C. Navarro Barrios<sup>1</sup>, R. Morales Andueza<sup>2</sup>, W. Rodriguez Ganzáles<sup>3</sup>. <sup>1</sup>Hospital University "San Cecilio", Granada; <sup>2</sup>Psychiatric Hospital of Madrid; <sup>3</sup>University of Granada, Faculty of Sociology, Spain

Objectives: To describe possible indicators of risk for anxiety among immigrant adolescents of the Third World in Granada (Spain).

Methods: 36 adolescents of the third world (22 women and 14 men) with ages among 13 and 18 years, and 25 controls, were studied. To them were applied the survey HAD and Hamilton, to determine symptoms of anxiety and depression, demographic and social variables were determined, and an interview structured was made by a specialist.

Results: More than 60% of the immigrant adolescents they had high levels of anxiety, related mainly with the origin country, the school degree, and the degree of irregular situation. There were not significant differences in the case of the depressive symptoms.

Conclusion: The results suggest that the immigrant adolescents with low school level, irregular situation, and of different culture (religion or language) can have bigger risk to present dysfunctions of anxiety.

#### P58 05

Abuse of alcohol and criminal behaviors in immigrants: a review

J.C. Navarro Barrios<sup>1</sup>, R. Morales Andueza<sup>2</sup>, A. Cañabate Prados<sup>1</sup>, W. Rodriguez Ganzáles<sup>3</sup>, B. Romero Montero<sup>1</sup>. <sup>1</sup>Hospital University "San Cecilio", Granada; <sup>2</sup>Psychiatric Hospital of Madrid; <sup>3</sup>University of Granada, Faculty of Sociology, Spain

The present study is a reflection from the point of view of the transcultural psychiatry of the possible existent relationship among the alcoholism in the immigrants and the genesis of violent and aggressive behaviors, associated to previous psychiatric comorbity (type disorder of personality); taking like base statistical data of organisms: sanitariums, judicial and of social support to the immigrant.

- Guardia J. Genetic epidemiology and factors of risk in alcoholism. In: Psychopathology and alcoholism (Casas, Gutiérrez M, San L; eds.). Ediciones en neurociencias, Barcelona. 1994.
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# Late poster

## LP01

Schizophrenia as a systemic disorder – studies of peripheral and central biological functions

L. Flyckt\*, G. Edman, L. Bjerkenstedt, N. Venizelos, L. Hagenfeldt, F.-A. Wiesel. Karolinska Institutet at Danderyds' Hospital, Division of Psychiatry, Stockholm, Sweden

Psychiatric disturbances with an onset in adulthood may show subtle signs in childhood and school age. A plasma membrane disturbance has been proposed as a common denominator responsible for both the central nervous system abnormalities in patients with schizophrenia (1). The aim of the present thesis was to investigate central (neuropsychological, neurological and psychomotor) and peripheral (neuromuscular, tyrosine transport across the cell membrane) functions in schizophrenia with tyrosine transport kinetics as an indicator of membrane function.

Patients with schizophrenia (n=39) exhibited neurological abnormalities and aberrant psychomotor performance to a significantly greater extent than healthy controls (n=55). Neuromuscular changes were found more often in patients with schizophrenia compared to controls. The patients exhibited aberrant tyrosine transport kinetics with significantly lower Vmax (indicating lower tyrosine transport) and Km (indicating higher affinity) compared to controls (2). Finally, the patients performed significantly worse than the controls in most of the neuropsychological tests.

In conclusion, the findings of central and peripheral abnormalities in patients with schizophrenia indicate that schizophrenia is a systemic, and not only a brain disease. The results, especially the tyrosine transport findings, indicate a disturbance on the level of the cell, possibly the cell membrane, in patients with schizophrenia.

- (1) Horrobin DF, Glen AI, Vaddadi K. The membrane hypothesis of schizophrenia. Schizophr Res, 1994. 13(3): p. 195-207.
- (2) Flyckt L, Venizelos N, Edman G, Bjerkenstedt L, Hagenfeldt L, Wiesel F-A. Aberrant tyrosine transport across the cell membrane in patients with schizophrenia. Archives of General Psychiatry, 2001;58:953-958.