

# Are incidence rates of schizophrenia decreasing?

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«In epidemiology you will always find something going up or something going down». A Swiss psychologist teased me with this statement during the AEP symposium on psychiatric epidemiology and social psychiatry in Zürich in the spring of 1992. She precisely hit the target as what contemporary schizophrenia epidemiology is concerned.

During the past few years we have seen several reports from various parts of the Western World documenting a clear decrease in first admission rates of schizophrenia, or in first contact schizophrenia rates. The results are reported from Australia (Parker *et al.*, 1985), New Zealand (Joyce, 1987), England and Wales (Der *et al.*, 1990; de Alarcon *et al.*, 1990; Harrison *et al.*, 1991), Scotland (Dickson & Kendell, 1986; Eagles & Whalley, 1985; Eagles *et al.*, 1988) and Denmark (Munk-Jørgensen, 1986; Munk-Jørgensen & Jørgensen, 1986; Munk-Jørgensen, 1987; Munk-Jørgensen & Mortensen, 1992). Investigations from Croatia (Folnegovic *et al.*, 1990) and London (Castle *et al.*, 1991) contradict the above mentioned studies. However, looking into the two latter there are some specific explanations so all in all it can be concluded that first admission rates or first contact rates of schizophrenia are decreasing.

Now, from this decrease in administrative rates it would be tempting to conclude that a decrease in incidence has occurred in the population. However, one can never deduce from administrative data and use the results on the population.

Admission rates are only to a certain degree dependent on incidence. Several threshold factors as availability of services, parapsychiatric service e.g.

number and educational level of GPs, geographical distance to services, insurance and payment, detection in primary care, psychological factors, pretreatment morbidity, etc. (Goldberg & Huxley, 1980) are of importance.

What might cause a decrease in first admission rates or first contact rates?

Change in service organization has been mentioned (Eagles *et al.*, 1988; Munk-Jørgensen & Mortensen, 1992). This has both a positive and a negative impact. The positive one points to an increased competence in outpatient clinics and daypatient settings. Some of the studies mentioned correct for this (Eagles *et al.*, 1988, de Alarcon *et al.*, 1990; Castle *et al.*, 1991; Harrison *et al.*, 1991). Therefore, one cannot conclude that new cases are treated in other services than inpatient settings. In the same way one can argue against the hypothesis that the GPs and private practising psychiatrists should have taken over treatment of new cases (Munk-Jørgensen & Mortensen, 1992).

Changing diagnostic patterns could also be a possible explanation. Introduction of new treatment possibilities might change the diagnostic habits (Baldesarini, 1970; Hare, 1974). Mors (1988) showed that e.g. borderline diagnoses have become more common also in Denmark. The diagnosis is widely given to patients diagnosed schizophrenia later in the course of illness. To a certain extent Munk Jørgensen & Mortensen (1992) corrected for these changes in diagnostic practice in their Danish studies, and de Alarcon (1990) did from Oxford. Anyhow, the two studies showed a decrease in first admission and first contact rates, respectively.

Migration is another possible explanation. Against this, one can argue that migration normally will remove healthy individuals from an area and leave the sick and disordered, while the contrary is rare.

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Drift of schizophrenics, particularly men, towards larger cities is also a possibility, as Eagles *et al.* (1988) mention. In Denmark where immigration is close to zero the decrease in first admission rates is highly significant (Munk-Jørgensen & Mortensen, 1992). In this connection it is worth mentioning Youssef *et al.*'s work (1991) from a rural area in Ireland. The authors found unchanged rates for men over a period while the rates for women were decreasing. The conclusions drawn from this work are, however, limited by a modest number of probands.

It might have been more difficult to pass the threshold to psychiatric treatment during the past two decades? This question is difficult to answer. Schizophrenia is a rare disease — with a prevalence at approximately 0,5% — so even very few persons not entering the treatment system will have a great impact on first admission rates. Such patients will be very difficult, not to say almost impossible, to identify outside the treatment system.

We might get some hints where to look for the unidentified schizophrenic individuals by analyzing the outcome of patients already diagnosed schizophrenia.

Firstly, the attention should be drawn to the fact that a decrease in first admission rates is seen in exactly the same period as the deinstitutionalization ideology blows over the Western World. In Denmark there is a parallel decrease in number of available beds and a decrease in, for instance, schizophrenia first admission rates. As a matter of fact, we see a parallel decrease in most illness groups in psychiatry (Munk-Jørgensen & Mortensen, 1992).

Exemplified by the situation in Denmark (Munk-Jørgensen & Mortensen, 1992) it has been documented that standard mortality rates among newly diagnosed schizophrenics have increased over the past fifteen years, 100% for both males and females within the year following their first schizophrenia diagnosis. Suicides form the majority. In Denmark we also witness a growing number of schizophrenics in shelters for homeless. A number equivalent to what is seen in the UK and the USA. Also the number of psychoses among criminals is increasing, so wherever we look for marginalized persons we meet an increasing number of schizophrenics. As it is possible to identify patients diagnosed schizophrenia in such places we might hypothesize that also persons not yet diagnosed are present.

Of course, one cannot deny a genuine decrease in the population but the political and administrative causes mentioned above should be eliminated before one accepts the decreasing incidence hypothesis.

Changing diagnostic patterns should also be further investigated. However, a hypothesis of a genuine decrease still cannot be rejected, but it might be interesting to see this in the light of findings of correlation between influenza exposure during gestation and schizophrenia in adult life (Kendell & Kemp, 1989; Barr *et al.*, 1990; Sham *et al.*, 1992) and correlation between prenatal complications and later developing schizophrenia (McNiel *et al.*, 1992). As these theories are not the topic here, I will end by suggesting that the «missing» schizophrenics also might be suffering from morbus politicus or morbus administratus.

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