Psychological Medicine, 1989, **19**, 285–287
Printed in Great Britain

EDITORIAL

Schizophrenia: fixed incidence or fixed thinking?[1]

Debate about a possible changing incidence and prevalence of schizophrenia was a major feature of psychiatric journals in the closing years of the nineteenth century. Since that time most professionals have assumed that both the incidence and prevalence of this disease are not only fixed in time but fixed in space – geographically uniform – as well. Such assumptions rest on alluvial grounds and are at risk of being washed away by emerging studies. The most remarkable facet of these assumptions, in fact, is that they are so widespread. If schizophrenia does indeed have a fixed incidence and prevalence both temporally and geographically, it would be virtually the only major disease known which has these features.

Suggestions that schizophrenia's incidence and prevalence are not fixed have accumulated over the years. Shepherd (1957), for example, claimed that the first admission rate for schizophrenia in the county of Buckinghamshire decreased significantly between 1931 and 1933 and 1945 and 1947. Hagnell's 1966 study of rural southern Sweden found a schizophrenia prevalence rate only two-thirds of that which had been found by Essen-Möller (1956) ten years earlier in the same area. Stromgren (1987) recently reported a 48-year follow-up to his earlier study of Bornholm Island; the prevalence rate for males had decreased only slightly but the rate for females had decreased by more than one-third. Joyce (1987) observed a decrease in the incidence of schizophrenia in New Zealand between 1974 and 1984. Eagles *et al.* (1988) reported a 40% decrease in the diagnosis of schizophrenia in north-east Scotland between 1969 and 1984 and concluded that it probably represented a true decrease in incidence. In Denmark, Munk-Jörgensen (1987) found a progressive decrease in the incidence of schizophrenia between 1970 and 1982; he suspects much of the decrease is due to changing diagnostic practice 'but a genuine decrease in the schizophrenia incidence cannot be excluded'.

On the other side of the ledger are occasional reports of increased incidence or prevalence of schizophrenia. Fortes & Mayer's (1969) report of dramatically increased schizophrenia prevalence in northern Ghana over twenty-seven years has neither been refuted nor replicated. Book *et al.* (1978) restudied an area of northern Sweden and found that schizophrenia had almost doubled in prevalance from 9·4 to 17·0 per thousand over twenty-five years. In the United States, the recent Epidemiologic Catchment Area research study has reported six-month schizophrenia prevalence rates (Myers *et al.* 1984), using a narrow definition of schizophrenia, which are twice as high as earlier studies in Baltimore (Lemkau *et al.* 1942) and New Haven (Hollingshead & Redlich, 1958) in which a broader definition of schizophrenia was used.

Perhaps the most interesting country for studying changes in the incidence and prevalance of schizophrenia is Ireland. Since 1808, when Sir Andrew Halliday claimed that in Ireland 'insanity is a disease of as frequent occurrence among the lower classes as in any other country in Europe', there have been numerous observations that psychosis is especially prevalent in that country as well as among Irish immigrants to other countries. In 1973 a three-county case register was established and reported a schizophrenia prevalance rate of 5·6 per 1000 (Walsh *et al.* 1980). By 1982 the rate had fallen to 4·9 (Walsh, personal communication, 1986). The suggestion of a falling schizophrenia prevalence rate was further supported by a 1982 intensive study of an area in one of the case register counties in which the high prevalence of schizophrenia was found to be due entirely to individuals who were over 40 years of age (Torrey *et al.* 1984). An additional recent study (NiNuallain *et al.* 1987) of the incidence of schizophrenia in the three counties confirmed that in Ireland at this time the 'morbid risk of schizophrenia, even at the broadest level, does not appear to be widely high'.

[1] Address for correspondence: Dr E. Fuller Torrey, Twin Studies Unit, NIMH, St. Elizabeth's Hospital, Washington, DC 20032, USA.

In reporting the results of this recent study, however, the authors illustrate a common problem in epidemiological studies of schizophrenia. Past studies of schizophrenia in Ireland are dismissed by saying merely that 'the work reported here does not support the popular belief of a high incidence of schizophrenia in Ireland'. The possibility that the incidence of schizophrenia has decreased in recent decades – and is still decreasing – is not even mentioned. During the last fifty years in Ireland there have been dramatic social and economic changes which could conceivably affect the incidence of schizophrenia including out-migration (genetic theories), improved nutrition (biochemical theories), and improved housing (infectious disease theories). Such possibilities may contain clues to the aetiology of schizophrenia. The authors, however, chose to focus on the current similarity of the schizophrenia incidence rates with other countries rather than on the past dissimilarity or change in the rates.

This preoccupation with similarity of schizophrenia incidence rates was also illustrated by the WHO multi-centre study which claimed that the results 'support ... the notion that the "central" schizophrenic syndrome may be occurring with approximately equal probability in different populations' (Sartorius *et al.* 1986). In fact, the WHO study utilized seven centres all of which were located in areas in which previous prevalence studies suggested not more than a twofold or threefold difference in schizophrenia prevalence (Torrey, 1987*a*). Not surprisingly what was found was a twofold to threefold difference in incidence as well.

Prevalence studies of schizophrenia suggest isolated pockets of this disease which appear to vary at least tenfold in methodologically sound studies from Rin & Lin's (1962) study of Formosan Aborigines (0·9 per 1000, lifetime prevalence) and Eaton & Weil's (1955) study of American Hutterites (1·1 per 1000, lifetime prevalence) to Book *et al.*'s (1978) re-study of an area in northern Sweden (17·0 per 1000, point prevalence) (Torrey, 1987*b*). It is certainly true that much of the world appears to have an incidence and prevalence within a comparatively narrow range but epidemiological clues are much more likely to come from differences than from similarities. The fact that neither the Hutterites nor the Formosan Aborigines have ever been restudied in the more than thirty years since the original work was done is a measure of psychiatric interest in unusual prevalences of this disease. It is also true that such epidemiological studies are fraught with methodological difficulties including diagnostic differences, case ascertainment, differences in population demographics and life expectancies, and migration of populations but such problems are not insurmountable. Our neurological colleagues have dealt with such problems in researching other chronic CNS diseases such as multiple sclerosis, and by focusing on unusual prevalences (e.g. the Faroe Islands) and migration patterns (e.g. from South Africa to England) have provided important clues to aetiology. Perhaps it is time for psychiatrists to take a similar approach to schizophrenia. As Professor Stromgren (1987) has said 'epidemiological studies may stand just as good a chance of providing clues to the aetiology of schizophrenia as do other scientific approaches being pursued at present'.

E. F. TORREY

REFERENCES

Book, J. A., Wetterberg, L. & Modrzewska, K. (1978). Schizophrenia in a North Swedish geographical isolate 1900–1977: epidemiology, genetics and biochemistry. *Clinical Genetics* **14**, 373–394.

Eagles, J. M., Hunter, D & McCance, c. (1988). Decline in the diagnosis of schizophrenia among first contacts with psychiatric services in North-East Scotland, 1969–1984. *British Journal of Psychiatry* **152**, 793–798.

Easton, J. W. & Weil, R. J. (1955). *Culture and Mental Disorders. A Comparative Study of the Hutterites and Other Populations.* Free Press· Glencoe, Illinois.

Essen-Möller, E (1956). Individual traits and morbidity in a Swedish rural population. *Acta Psychiatrica et Neurologica Scandinavica* Supplementum 100, 1–160.

Fortes, M. & Mayer, D Y. (1969). Psychosis and social change among the Tallensi of Northern Ghana. In *Psychiatry in a Changing Society* (ed. S. H. Foulkes and G. S. Prince), pp. 33 73. Tavistock: London.

Hagnell, O. (1966). *A Prospective Study of the Incidence of Mental Disorder.* Norstedts-Bonniers: Lund.

Halliday, A. (1808). *Remarks on the Present State of Lunatic Asylums in Ireland.* John Murray: London.

Hollingshead, A. B. & Redlich, F. C. (1958). *Social Class and Mental Illness.* John Wiley: New York.

Joyce, P. R. (1987). Changing trends in first admissions and readmissions for mania and schizophrenia in New Zealand, 1974 to 1984. *Australia and New Zealand Journal of Psychiatry* **21**, 82–86.

Lemkau, P. V., Tietze, C. & Cooper, M. (1942). Mental hygiene problems in an urban district. *Mental Hygiene* **25**, 624 646.

Munk-Jörgensen, P. (1987) Why has the incidence of schizophrenia in Danish psychiatric institutions decreased since 1970? *Acta Psychiatrica Scandinavica* **75**, 62–68.

Myers, J. K., Weissman, M. M., Tischler, G. L., Holzer, C. E., Leaf, P. J., Orvaschel, H., Anthony, J. C., Boyd, J. H., Burke, J. D., Kramer, M. & Stoltzman, R. (1984). Six-month prevalence of psychiatric disorders in three communities. *Archives of General Psychiatry* **41**, 959–967

NiNuallain, M., O'Hare, A. & Walsh, D. (1987). Incidence of schizophrenia in Ireland. *Psychological Medicine* **17**, 943–948.

Rin, H. & Lin, T.-Y. (1962) Mental illness among Formosan Aborigines as compared with the Chinese in Taiwan. *Journal of Mental Science* **108**, 134–146.

Sartorius, N., Jablensky, A., Korten, A., Ernberg, G., Anker, M., Cooper, J. E. & Day, R. (1986). Early manifestations and first-contact incidence of schizophrenia in different cultures. *Psychological Medicine* **16**, 909–928.

Shepherd, M. (1957). *A Study of the Major Psychoses in an English County*. Maudsley Monographs, No. 3. Chapman and Hall: London.

Stromgren, E. (1987). Change in the incidence of schizophrenia? *British Journal of Psychiatry* **150**, 1–7.

Torrey, E. F. (1987*a*). Incidence worldwide of schizophrenia (letter). *British Journal of Psychiatry* **151**, 132–133.

Torrey, E. F. (1987*b*). Prevalence studies in schizophrenia *British Journal of Psychiatry* **150**, 598–608.

Torrey, E. F., McGuire, M., O'Hare, A., Walsh, D. & Spellman, M. P. (1984). Endemic psychosis in western Ireland. *American Journal of Psychiatry* **141**, 966–969.

Walsh, D., O'Hare, A., Blake, B., Halpenny, J. V. & O'Brien, P. F. (1980). The treated prevalence of mental illness in the Republic of Ireland the three country case register study. *Psychological Medicine* **10**, 465–470.

https://doi.org/10.1017/S0033291700012320 Published online by Cambridge University Press