References

BARNES, T. R. E. (1984) Rating tardive dyskinesia. *British Journal of Psychiatry*, **145**, 338.

—— & TRAUER, T. (1982) Reliability and validity of a tardive dyskinesia videotape rating technique. *British Journal of Psychiatry*, **140**, 508–515.

FIRTH, W. R. & ARDERN, M. H. (1985) Measuring abnormal movement in tardive dyskinesia: a pilot study. *British Journal of Psychiatry*, **147**, 723–726.

KIDGER, T., BARNES, T. R. E., TRAUER, T. & TAYLOR, P. J. (1980) Subsyndromes of tardive dyskinesia. *Psychological Medicine*, **10**, 513–520.

US DEPARTMENT OF HEALTH, WELFARE AND EDUCATION (1976) Abnormal Involuntary Movements Scale (AIMS). In *ECDEU Assessment Manual* (ed. W. Guy). Rockville, Maryland: US Department of Health, Welfare and Education.

Premorbid Adjustment Scale as a Prognostic Predictor for Schizophrenia

It is difficult to formulate a medium or long-term prognosis following the onset of schizophrenia. Standard criteria such as those of type of onset (acute or insidious), predominant symptoms (Huber *et al*, 1980), or the diagnosis of subtype do not correlate satisfactorily with outcome (Bland *et al*, 1976). In the last decade some authors cited the importance of premorbid factors such as socio-familial relationship, adaptation to school, or pseudo-psychopathic or toxicophylic behaviour (Strauss & Carpenter, 1977; Wittenborn *et al*, 1977) in the outcome of these patients, with a marked relationship having been noted between these factors and personal autonomy in later years.

Cannon-Spoor *et al* (1982) recently developed the Premorbid Adjustment Scale (PAS) to evaluate aspects such as withdrawal, social relationships, independence, scholastic performance, and ability to establish socio-sexual relationships. All patients are rated on five sub-scales corresponding to childhood, early adolescence, late adolescence, adulthood, and general, with a total of 26 items. These authors suggested that a high score on this scale may detect patients likely to become chronically hospitalised or at high risk for readmission.

We studied a sample of 30 patients (11 in-patients, 19 out-patients) presenting schizophrenic disorders (DSM–III criteria) independent of subtypes (14 males and 16 females; mean age = 24.9; age range = 17–34). The rating scale was administered retrospectively in the majority of cases by five raters with the patient and his family separately (the minimum correlation between pairs of raters was $r = 0.76$ ($P \leqslant 0.0001$)). The minimum duration of illness was 2 years (mean = 3.6). All were admitted to hospital at least once (mean = 3 admissions). Outcome was evaluated using Strauss & Carpenter's scale (1972), which covers duration of time spent outside hospital, social contacts, and time usefully employed over the last year, as well as absence of symptoms in the past month.

Correlation between the two scales, PAS average and Strauss, was statistically significant ($r = 0.76$, $P \leqslant 0.001$ for the average score). Similar results were seen on comparing PAS sub-scales with Strauss & Carpenter's outcome scale: childhood, $r = 0.49$ ($P \leqslant 0.01$); early adolescence, $r = 0.69$ ($P \leqslant 0.001$); late adolescence, $r = 0.61$ ($P \leqslant 0.001$); adult, $r = 0.73$ ($P \leqslant 0.001$); general, $r = 0.75$ ($P \leqslant 0.001$).

Ten patients had been rated as having an acute onset of less than three months, and 20 an insidious onset. Correlation between the two scales was not significant in the acute onset subgroup ($r = 0.59$), while the insidious onset sub-group showed a significant correlation ($r = 0.67$; $P \leqslant 0.001$).

PAS appears to be a valuable and useful aid both in daily clinical practice and for further studies investigating the factors related to schizophrenia and its outcome.

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References

BLAND, R. C., PARKER, J. H. & ORN, H. (1976) Prognosis in schizophrenia. *Archives of General Psychiatry*, **33**, 949–954.

CANNON-SPOOR, H. E., POTKIN, S. G. & WYATT, R. J. (1982) Measurement of premorbid adjustment in chronic schizophrenia. *Schizophrenia Bulletin*, **8**, 470–484.

HUBER, G., GROSS, G., SCHÜTTLER, R. & LINZ, M. (1980) Longitudinal studies of schizophrenic patients. *Schizophrenia Bulletin*, **6**, 592–605.

STRAUSS, J. S. & CARPENTER, W. T. (1972) The prediction of outcome in schizophrenia. I. Characteristics of outcome. *Archives of General Psychiatry*, **27**, 739–746.

—— & —— (1977) Predictor of outcome in schizophrenia. III. Five-year outcome and its predictors. *Archives of General Psychiatry*, **34**, 159–163.

WITTENBORN, J. R., MCDONALD, D. C. & MAURER, H. S. (1977) Persisting symptoms in schizophrenia predicted by background factors. *Archives of General Psychiatry*, **34**, 1057–1061.