MODESTIN, J. (1987) *Suizid in der psychiatrischen Klinik*. Stuttgart: Enke.

MOTTO, J. A. (1965) Suicide attempts. *Archives of General Psychiatry*, **13**, 516–520.

NYMAN, A. K. & JONSSON, H. (1986) Patterns of self-destructive behaviour in schizophrenia. *Acta Psychiatrica Scandinavica*, **73**, 252–262.

PAYKEL, E. S., MCGUINESS, B. & GOMEZ, J. (1976) An Anglo-American comparison of the scaling of life events. *British Journal of Medical Psychology*, **49**, 237–247.

ROY, A. (1982) Suicide in chronic schizophrenia. *British Journal of Psychiatry*, **141**, 171–177.

SCHÜTTLER, R., HUBER, G. & GROSS, G. (1976) Suizid und Suizidversuch im Verlauf schizophrener Erkrankungen. *Psychiatria Clinica*, **9**, 97–105.

SPITZER, R. L., ENDICOTT, J. & ROBINS, E. (1980) *Research Diagnostic Criteria (RDC) for a Selected Group of Functional Disorders*. New York: New York State Psychiatric Institute.

SUNDQVIST-STENSMAN, U. B. (1987) Suicides in close connection with psychiatric care: an analysis of 57 cases in a Swedish county. *Acta Psychiatrica Scandinavica*, **76**, 15–20.

TEJEDOR, M. C., CASTILLON, J. J., PERICAY, J. M., *et al* (1987) Suicide behavior in schizophrenia. *Crisis*, **8**, 151–161.

TSUANG, M. T. (1978) Suicide in schizophrenics, manics, depressives, and surgical controls. A comparison with general population suicide mortality. *Archives of General Psychiatry*, **35**, 153–155.

WORLD HEALTH ORGANIZATION (1978) *Mental Disorders: Glossary and Guide to their Classification in Accordance with the Ninth Revision of the International Classification of Diseases (ICD-9)*. Geneva: WHO.

Jiří Modestin, MD, *Psychiatrist*; Ivo Zarro, MD, *Senior Resident*; Doris Waldvogel, MA, *Research Psychologist, Psychiatric University Clinic, Bolligenstrasse 111, CH-3072 Bern, Switzerland*

Preschizophrenics: Adding to the Evidence, Sharpening the Focus

ARIS AMBELAS

The notion of a subclinical preschizophrenic condition already present in childhood is given further support by the findings of this follow-back study, which also brings into sharper focus the childhood profile of the likely adult schizophrenic.

British Journal of Psychiatry (1992), **160**, 401–404

There continues to be a relative paucity of studies which attempt to follow the natural history of psychiatric illness in reverse, i.e. from the clinical onset backwards into the preclinical state of the individual. Most of those that exist are either investigations of transgenerational biological links in the form of genetic research, or alternatively they centre on life events, taking a rather small retrograde step.

Investigations attempting to examine links between adult clinical presentation and childhood profiles are confounded by the risk of distortions in retrospectively collected information on the childhood of patients, whether obtained from the patients themselves or from close relatives. The few studies which exist have tended to take one of three forms:

(a) follow-up studies of child cohorts, which provide very good information on outcome of childhood psychopathology, but end up with numbers of adult patients in any specific psychiatric category which are too small for meaningful analysis (e.g. Robins, 1966)

(b) studies which follow up child populations which are psychopathologically normal, but presumed to be at high risk genetically, in a search for biophysiological predictors (e.g. Venables, 1988)

(c) coincidence studies, which examine cohorts of adult psychiatric patients who were also child patients.

These studies differ in two dimensions. Firstly in terms of breadth of adult psychiatric diagnosis, some examine 'single diagnosis' groups (e.g. Frazee, 1953; Dahl, 1971), and others wider groups, from 'psychotics only', on to 'any diagnosis' (e.g. Pritchard & Graham, 1966; Zeitlin, 1986). Secondly, they differ in the selectivity of the childhood group, from in-patient (Warren, 1960) through to "out-patient psychiatric" (e.g. Zeitlin, 1986) to child-guidance attenders/not necessarily psychiatric (e.g. Roff & Knight, 1980), and even unselected populations (Hellgren *et al*, 1987).

In terms of schizophrenia, some of these studies have samples in single figures (Pritchard & Graham, 1966), and the earlier ones are uncontrolled and often focus on what we nowadays consider soft parameters, i.e. childhood personality, parental personality, marital adjustment; others included mentally sub-normal patients or control with normal children, who are by definition different (Robins, 1966; Hellgren *et al*, 1987). A study by Roff (1961) commands special note in spite of numerous weaknesses in sampling, for the size of sample, four times larger than any other study and the imaginative handling of almost unusable data.

https://doi.org/10.1192/bjp.160.3.401 Published online by Cambridge University Press

This paper describes a controlled coincidence study which opted for a narrow diagnostic band for adults, i.e. schizophrenia only, and childhood groups of child-guidance attenders, resembling most closely in terms of sampling that of Frazee (1953). This selection was made on the basis of the opportunities which local circumstances offered. Schizophrenia was selected as a far better defined entity than, for example, depression or personality disorder, yet far commoner than equally well-defined psychiatric diagnoses such as mania or obsessive–compulsive neurosis and, therefore, likely to give an index group of reasonable size. The child-guidance attenders, not necessarily psychiatric, offered the widest and least selective group possible, and the unusually high throughput of cases of the particular child guidance service (approximately 1 in 6 of the male child population) further increased the likelihood of a viable size of a child cohort. A further useful circumstance was that the catchment area of the psychiatric hospital and the child guidance centre (CGC) was the same.

Method

The discharge records of a busy psychiatric unit were screened for patients diagnosed as schizophrenic by 1988, whose birth date fell within the seven year period between 1 January 1954 and 31 December 1961. The study concentrated on males only, because there were far fewer girls referred to the CGC (ratio 1:13).

Fifty-six young men were identified who met the DSM–III criteria for schizophrenia (American Psychiatric Association, 1980) and had received this diagnosis within the period under examination. Of those, 18 had been known to the CGC. These constituted the index group of the study; a control group was formed by pairing the index group patients with 18 child-guidance controls, matched for age, sex, time of referral (within two months), and reason for referral. Reason for referral was the main or two main complaints in the referral letter, such as "aggressive and will not sleep" or "underachievement". This last parameter was considered crucial for true comparability, since otherwise there would be a risk of having a control group of children referred for completely different reasons, and therefore different almost by definition. The notes of patients and controls were re-examined by clinicians blind to the study. The notes of the index patients were also compared with those of the 38 adult schizophrenic patients, who had not been known to the CGC, who thus constituted a second 'unknown adult schizophrenic' control group.

Results

Comparisons between information contained in the case notes of adult schizophrenic patients known to the CGC ($n=18$) and those who had not been known ($n=38$) showed no differences, neither in demographic characteristics, such as patient's marital status, parents' marital situation or social class, nor in symptoms, type of schizophrenia, presence or absence of family history of psychosis, presence or absence of stressful life events, or course of illness. The only positive finding was a preponderance of reported concussion among the cases who had not been previously known. The screening confirmed the unreliability of information about childhood collected at the point of adult presentation. On only one occasion the patient's earlier attendance to a school for maladjusted was recorded, and developmental problems were never reported, even though the appropriate questions had been asked. In that sense the information was not simply absent, but actually false.

Populations and incidences

There were 21 161 male births in the city during the seven years surveyed. From those, 3186 had had a contact with the CGC, a ratio of 1:6.6. Of the 58 patients who developed schizophrenia by the age of 27 years, 18 had become known to the same CGC, a ratio of 1:3.2. The difference is highly statistically significant ($\chi^2=11.61$, 1 d.f., $P<0.001$). The mean age at which the index boys were seen at the CGC was 10 years and 3 months, with a range from 6–15, the spread being fairly even.

Diagnoses and symptom distribution

Child psychiatric diagnoses were multiaxial. In terms of physical illness, neither index nor control groups show

Table 1
Clinical syndromes, development and relationship problems in the children referred to the child guidance clinic

Syndrome	Index	Control	*P*	Remarks
Clinical syndromes				
Adjustment reaction	0	4		Diagnoses
Emotional disorder	4	4		mutually
Conduct disorder	1	4		exclusive
Mixed emotional and conduct	7	1	0.02	$\chi^2=5.785$, d.f. = 1
Enuresis–encopresis	2	2		
No psychiatric diagnosis	2	6		
Developmental problems				
Total number of children with developmental problems	8	2	0.05	$\chi^2=4.98$, d.f. = 1
Speech and language problems	3	1		Diagnoses not
Reading problems	4	1		mutually
Discoordination	2	2		exclusive
Relationship problems				
No. of children with disturbed relationships	14	8		
with mother	3	5		Not mutually
with father	3	2		exclusive
with stepfather	2	3		
with other adults	2	2		
with siblings	3	1		
with other children	9	2	0.01	$\chi^2=6.235$, d.f. = 1

https://doi.org/10.1192/bjp.160.3.401 Published online by Cambridge University Press

any particular sickliness, and certainly no neurological syndromes or epilepsy. With respect to psychosocial diagnoses there were no differences indicative of any trend. Even mental disturbance in the family was equally represented between groups.

The size of the sample, while larger than most comparable studies, was still rather small for differences in clinical syndromes recorded to reach levels of statistical significance, and the selection process, where children were matched for reason for referral, further reduced the likelihood of divergence when a final diagnosis was arrived at. However, fewer control children received a psychiatric diagnosis, while among the index group, half of those with a psychiatric diagnosis belonged to the mixed emotional and conduct disorder group. The difference in this particular diagnosis was the only one to reach statistical significance (Table 1).

In terms of developmental problems, four times as many index children presented developmental problems, the difference being almost wholly accounted for by difficulties in the areas of speech, language and reading.

There were no significant differences in prevalence of any behavioural symptoms; in terms of emotional symptoms index children showed higher rates of irritability and none showed depressed mood, which was recorded in three control children. Statistically significant levels of difference were only just reached in the area of school attendance problems ($\chi^2 = 4.43$, 1 d.f., $P < 0.05$).

Table 1 also shows the difference in relationship problems, which are significant only in the area of relationships with children. Peer relationship problems have also been noted by Roff (1961). Common sense would suggest that the two, school non-attendance and peer relationship difficulties, may well be related.

It was standard practice of the CGC concerned that every child who ever attended was given an IQ score. The scores of index and control groups are shown in Fig. 1. Index children scored lower than control children (means – preschizophrenics 87.8, controls 97.1). This, together with the identified presence of developmental problems, might suggest that attention deficit may have been a feature, but this was surprisingly not recorded. One possible explanation could be that in the late 1960s clinicians were not looking for it.

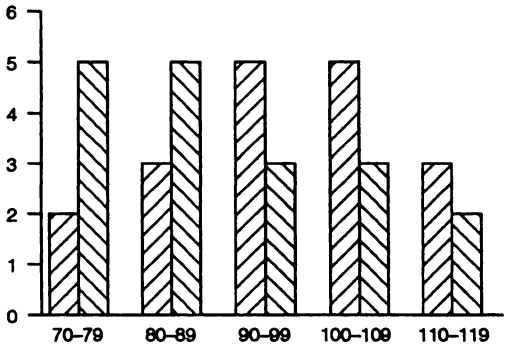


Fig. 1 IQ scores of control (▨) and preschizophrenic (▧) children.

Statistically significant differences were found in two other areas. In terms of the boys' ordinal position in the family, the index group contained a high number of first children or youngest boys, and a corresponding absence of middle-boy positions, which were very common among controls ($\chi^2 = 11.6$, d.f. 3, $P < 0.01$). The middle-child position among controls accounts for the greatest proportion of the χ^2 value. The final difference was in type of school attended, either at the point of referral or as a result of the referral. Among the 18 index cases, 10 attended special schools while only two of the controls did so ($\chi^2 = 8.00$, 1 d.f, $P < 0.001$). These placements represented the managerial confirmation of the presence of (a) learning difficulties, (b) peer group difficulties, or (c) a combination of (a) and (b), factors already shown to differentiate between groups.

Discussion

Perhaps the most important point to be made is that the preschizophrenics were twice as likely to have been perceived as in need of educational or psychological/psychiatric help than the general pattern of childhood disturbance and referrals would predict.

The tendency to diagnose mixed emotional and conduct disorder among those children noted by earlier studies was again confirmed and makes one wonder whether it is a reflection of diagnostic uncertainty on the part of the clinician, of that same feeling which Zeitlin identified as a tendency of clinicians to describe their pre-psychotic patients as 'odd' or 'incongruous'. The major difficulties in relationships with children may be the basis for such characterisations. The high incidence of developmental problems among the preschizophrenic group, also noted earlier, was again confirmed, and while it did not reach statistical significance when the comparison was with another abnormal group, it is patently obvious that at levels approaching 50% within the group it is way above the expectation of such problems in the general child population. The overall lower IQ scores, reported earlier by Roff & Knight (1980), were also confirmed. In view of the clinical picture, the higher rate of attendances at special school was not surprising.

The findings and observations of this study suggest that our preschizophrenic boy has the following profile: he is the oldest or youngest boy, but not the middle one, he is diagnosed with a mixed conduct and emotional disorder with developmental difficulties in the area of speech, language and reading, has refused school, has problematic peer relationships, and by the age of 13 is likely to be attending a special school.

This pattern allows for an interesting speculation. Our general understanding of schizophrenia is of an

https://doi.org/10.1192/bjp.160.3.401 Published online by Cambridge University Press

illness which has two core components, disordered thought and inability to relate appropriately. This problem with relationship formation is already present in our children's group, while the areas in which they under-perform are exactly those which are mediated by thinking processes, i.e. speech, language and intelligence scores. The findings would support a notion of a subclinical fault in thinking processes being already present in children such as those described in this study, an idea earlier proposed by Offord (1974).

While the picture is still not specific enough to single out every future victim of schizophrenic disorder, the study indicates that these children do stand out early enough and have profiles on which attention with preventive intent could be drawn. In an era where sociomedical measures are assuming increasing importance in averting relapses, the task of further refining preclinical profiles, which could result in earlier detection and hopefully prevention, is becoming almost imperative. This is clearly a matter for future research and the immediate next step could be a prospective study of an at-risk group (or groups) selected on the grounds of 'oddity', failing peer relationships, and speech and language delays.

Acknowledgements

The author wishes to thank Dr Amrit Singh for his invaluable assistance with data collection in the early stages of the study, and Mr S. Gilmore for his help with the final putting together of the manuscript.

References

AMERICAN PSYCHIATRIC ASSOCIATION (1980) *Diagnostic and Statistical Manual of Mental Disorders* (3rd edn) (DSM-III). Washington, DC: APA.

DAHL, V. (1971) A follow up study of child psychiatric clientele with special regard to manic-depressive psychosis. In *Depressive States in Childhood and Adolescence* (ed. A. L. Annell) proceedings of the UEP Congress, Stockholm 1971. Stockholm: Almquist and Wiksell.

FRAZEE, H. E. (1953) Children who later become schizophrenic. *Smith College Studies in Social Work*, **XXIII**, 125–149.

HELLGREN, L., COILLBERG, C. & ENERSKOG, I. (1987) Antecedents of adolescent psychoses. A population based study of school health problems in children who develop psychosis in adolescence. *Journal of the American Academy of Child and Adolescent Psychiatry*, **26**, 351–355.

OFFORD, D. R. (1974) School performance of adult schizophrenics, their siblings and age mates. *British Journal of Psychiatry*, **125**, 12–19.

PRITCHARD, M. & GRAHAM, P. (1966) An investigation of a group of patients who have attended both the child and adult departments of the same psychiatric hospital. *British Journal of Psychiatry*, **112**, 603–612.

ROBINS, L. N. (1966) *Deviant Children Grown Up*. Baltimore: Williams & Wilkins.

ROFF, M. (1961) Childhood social interactions and young adult psychosis. *Journal of Abnormal Social Psychology*, **63**, 152–157.

ROFF, J. B. & KNIGHT, R. (1980) Preschizophrenics: low IQ and aggressive symptoms as predictors of adult out-come and marital status. *Journal of Nervous and Mental Disease*, **168**, 129–132.

VENABLES, P. H. (1988) Childhood markers for adult disorders. *Journal of Child Psychology and Psychiatry*, **30**, 347–364.

WARREN, W. (1960) Some relationships between the psychiatry of children and of adults. *Journal of Mental Science*, **106**, 815–826.

ZEITLIN, H. (1986) *The Natural History of Psychiatric Disorder in Children*. Oxford: Oxford University Press.

Aris Ambelas, MRCPsych, MD, *Consultant Child and Adolescent Psychiatrist, Westcotes House, Westcotes Drive, Leicester LE3 0QU*

Eating Disorders in Men with HIV Infection

NOREEN RAMSAY, JOSE CATALAN and BRIAN GAZZARD

Four men with HIV infection who were referred to liaison psychiatry for assessment of eating disorders are described. In all four cases the eating disorder had implications for the clinical management of their HIV infection. Investigations of weight loss, dietary intervention, and compliance may all be affected by the presence of an eating disorder. The development of HIV disease may exacerbate the symptoms of an eating disorder.

British Journal of Psychiatry (1992), **160**, 404–407

Significant weight loss is a major complication in human immunodeficiency virus (HIV) infection and is often perceived by patients as a sign of clinical deterioration: staying healthy is equated with stable or increasing weight, and loss of weight with illness. Maintenance of, or increase in, weight may be difficult for individuals with eating disorders. The development of HIV infection in such patients may lead to complications which affect their clinical management. Excessive preoccupation with weight and food is shown in all eating disorders. Anorexia nervosa may be more easily recognised than other diseases because of the severe self-induced inanition, with a dread of losing control of eating and becoming

https://doi.org/10.1192/bjp.160.3.401 Published online by Cambridge University Press