

Psychiatry and Learning Disability

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My involvement with the psychiatry of learning disability began in 1968 when Professor Batchelor, then Professor of Psychiatry at the University of Dundee, suggested that mental illness in people with learning disability was a clinically interesting and under-researched topic which merited further investigation. At that time, mental illness was not usually considered even a part of the medical specialty of learning disability – or at least, not in Scotland. People in mental handicap hospitals who developed signs of mental illness were normally passed on to colleagues in general psychiatry who were considered to have the investigative and treatment expertise. If admission to in-patient care was considered necessary, it was usually to the local general psychiatry service.

There was a literature, but it was somewhat abstruse and did not influence or inform clinical practice or service planning in any significant way. Much of the literature was in German and dated from earlier in the century (Reid, 1989). One of the main themes revolved around the condition of *Pfropfschizophrenia*. There was a circular debate as to whether schizophrenia in people with learning disability was a clinically distinct condition, whether a schizophrenic psychosis of particularly early onset could bring about a state of severe learning disability, and whether the complex hand and finger movements, mannerisms and stereotypies seen in some such people were “a form of schizophrenia played out upon the psychomotor level rather than the symbolic” (Earl, 1934).

There were some very fine contributions including Professor Penrose’s 1938 clinical and genetic survey of 1280 cases of learning disability (the Colchester Survey), and a scholarly review by Hayman (1939), but there had not been any substantial interest since then.

The earlier studies therefore focused on the functional psychoses and the diagnostic significance of these mannerisms and stereotypies (Reid, 1972). In retrospect it was not the major issue in the psychiatry of learning disability but it was an area in which it was possible to apply basic clinical diagnostic skills derived from general psychiatry. In addition, it emphasised the uniqueness and individuality of people with learning disability. Earl

had written a book in 1961 entitled *Subnormal Personalities* but on the whole the medical perspective at the time was syndrome- rather than individual orientated. Looking at patients from a psychopathological viewpoint, they became individuals with a life of their own and a family with psychodynamics.

The functional psychoses

Schizophrenia is a clinical diagnosis and language-based, and hence dependent on a certain level of intellectual development. I considered it was not practicable, therefore, to diagnose schizophrenia in people with an IQ much below around 45 (Reid, 1972). This seems to be widely accepted now, and a paper by Meadows *et al* (1991) confirms this and demonstrates the applicability of the standardised diagnostic interview Schedule for Affective Disorders and Schizophrenia.

There has been a comprehensive review of prevalence studies by Turner (1989). He considers the many surveys that have been reported and points out their shortfalls, but ends up by suggesting that the usually quoted prevalence rate of around 3% for schizophrenia in people with learning disabilities may not be far wrong. That in itself is unusual because it is a higher rate than in the general population. There are enormous problems in prevalence studies of schizophrenia in learning disability, however. The syndrome is confined largely to the mild and moderate ranges of mental retardation (Table 1), and most children who function at school age in the mild range of mental retardation, become independent adults and lost to contact and services as they grow up (Table 2). There is no prevalence study that takes this effect convincingly into account.

There has also been a great deal of interest in the molecular genetics of schizophrenia, meticulously summarised by Bassett (1992), and this is a most promising area of research. For example:

George is aged 35. He is in the mild range of mental retardation with an IQ of around 60 and he suffers from schizophrenia. He hears voices commenting on his actions, calling his name, and he frequently answers them back. At home there are interruptions in his attention and concentration when he appears quite clearly clinically hallucinated. He has delusions of identity and *doppelgänger*

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Table 1
Ranges of intelligence in adults with learning disability and schizophrenia

	Borderline	Mild	Moderate	Severe	Profound
Reid (1972)	2	13	4	0	0
Heaton-Ward (1977)		-	40	3	0
Hucker <i>et al</i> (1979)		21	-	3	0
Day (1985)	1	5	5	0	0

Table 2
Estimated numbers of persons with learning disability (rates per thousand population)

	Severe	Mild
Pre-school	3.0	-
School age	3.6	8.7
Adult	2.0	2.5

After SHHD & SED (1979).

phenomena, and when he was first referred, long before he was treated with phenothiazines, he had a slight orofacial dyskinesia.

He is an only child. He comes from a caring family, and is much loved by his parents who are intelligent, well-informed people of professional background and above-average intelligence. There is no family history of mental illness or learning disability. He has a dysplastic appearance without suffering from a recognisable syndrome.

It seems unlikely that mental retardation and schizophrenia coexist by chance in this man, and hopefully further progress in molecular genetics will clarify the linkage.

Turning to the affective disorders, there is probably now a reasonable consensus that mood disorder syndromes do occur in people with learning disability, and across the spectrum of intelligence. Wright (1982) has described depressive disorders in severely mentally retarded adults superimposed on an early childhood psychosis. Reid *et al* (1987) described an intriguing family in which a bipolar affective disorder was present in three siblings who between them spanned a spectrum of intelligence from profound, through moderate to borderline mental retardation, and in whom the clinical manifestations became increasingly cyclical and dominated by biological features, with decreasing levels of intelligence. Glue (1989) has described a series of ten adults with learning disability and rapid cycling affective disorders, and it may be that cyclical disorders are unusually common in this population. In an interesting perspective, Hollins (1990) has drawn attention to the presence and significance of bereavement phenomena in people with learning disability. Usually the death of a parent is considered

in terms of "who will care for Johnny when I am gone", and Hollins' work has very appropriately focused on the people with learning disability first, their feelings, their reactions and their individuality. Sometimes, however, affective disorders in people with learning disability are complicated by neurological problems and run a destructive and treatment-resistant course. For example:

Helen is aged 48. She is in the moderate range of mental retardation with an IQ of around 40 and she suffers from a severe and unstable bipolar manic-depressive psychosis. Treatment is complicated by psoriasis which is exacerbated by lithium, and torsion dystonia which is adversely affected by neuroleptics. There is a family history of affective disorder and suicide. When mentally disturbed Helen becomes severely agitated, tormented, restless and aggressive, and there have been times when she has required the facilities of the State Hospital at Carstairs. She is maintained at a rather better level at present on carbamazepine which she tolerates with fewer side-effects.

There has been little progress, however, with prevalence and incidence studies in the affective disorders. Many of the surveys that have been reported suffer from biased sampling, inconsistencies in the diagnostic criteria and ambiguities in classification. Most fail to distinguish between incidence rates, and point and period prevalence rates.

The psychoses of senescence

Turning to the psychoses of senescence, Alzheimer's disease and multi-infarct dementia, Tait's (1983) survey confirmed that there is no increased liability towards these conditions in people with learning disability. The association of Down's syndrome with the neuropathological changes of Alzheimer's disease remains an intriguing phenomenon, however. There is no convincing explanation of the apparent discontinuity one sometimes sees between the neuropathological changes in the brain and the clinical syndrome of dementia in life. There is, in addition, a need for further study of the incidence of Alzheimer's-type neuropathological change in mosaic forms of Down's syndrome and in individuals with 21/22 translocations (Prasher, 1993). Down's syndrome continues to enhance our understanding

of Alzheimer's disease in many ways and in a recent leading article in the *British Medical Journal*, Mullan (1992) referred to the linkage of early onset familial Alzheimer's disease with chromosome 21, and described how this had been followed by the identification of mutations of the gene coding for the amyloid precursor protein on that chromosome.

In connection with the problems of an ageing population, Carter & Jancar (1983) have drawn attention to the steadily progressive longevity of people with learning disability. Ballinger & Ballinger (1991), however, in a perceptive article, drew attention to how physically and mentally well-preserved many such elderly people are, and commented that their needs are more appropriately seen in the context of quality of life in residential care, and rarely in the hospital setting.

The pervasive developmental disorders

Recent research in this field has drawn attention to the spectrum of autistic disorders, and to the unique ongoing care and dependency needs posed by these people as they grow up. Of particular interest has been the debate about the relationship between Asperger's syndrome, high-functioning autism and schizoid personality disorder (Wolff, 1991, 1992). There are features in common between all these three conditions, and they raise the question of whether there is some common underlying biological mechanism producing the affective disturbance in schizophrenia, autism, Asperger's syndrome and schizoid personality.

Personality, conduct and behaviour disorders

The functional psychoses, pervasive developmental disorders and psychoses of senescence are only a small part of the psychiatry of learning disability, however, and by far the bulk of the psychopathology is to be found in the fields of personality, conduct and behaviour disorders (Table 3). Here there is an enormous literature, much of it in the psychological domain, which has been carefully documented by Day *et al* (1988). There are relatively few contributions from psychiatry, however.

Reid *et al* (1978) tried to identify behavioural syndromes using a cluster analysis technique, and in 1984 Reid *et al* sought to follow up individual items of behaviour and to trace out the evolution and natural history of these clusters. This work is ongoing. Unfortunately, however, a behavioural cluster is only as good as the original behavioural items and thinking has certainly moved on since 1978. Even so the data do provide the opportunity for a cohort study, whatever the imperfections, and there was an interesting take-up by Welch & Sovner (1992) of one of the behavioural syndromes, which they suggested should be seen as an organic brain disorder. A significant number of the behaviour problems one encounters in people with learning disability, particularly those featuring social and emotional dyscontrol, severe self-injury, aggressiveness and hyperactivity, will probably turn out to be organic brain disorders. In an interesting perspective on these behaviour disturbances, Leudar *et al* (1984) have attempted to quantify them along six dimensions: aggression, mood disturbance, communicativeness, antisocial conduct, idiosyncratic mannerisms, and self-injury, and sought to follow their longitudinal stability.

There is a need for a replication of these studies using more sophisticated measures of behaviour and over a long period of time.

Personality disorder in people with learning disability is another largely unexplored area. There was the original book by Earl in 1961, but this focused largely on the range of personality types and factors in people with learning disability, and was not directed at personality disorder as such. Corbett (1979) drew attention to the high prevalence of personality disorder among people with learning disability in the Camberwell study, the bulk of them with disorders involving impulsivity, immaturity, anxiety and explosiveness. Corbett commented on the need for more longitudinally based studies. Reid & Ballinger (1987) carried out a survey of 100 adults in the mild and moderate ranges of mental retardation in hospital using Mann's Standardised Assessment of Personality (Mann *et al*, 1981). Most of the patients with personality disorder fell into the categories of cyclothymic, explosive and hysterical disorders, and there were interesting sex differences. The numerical distribution was comparable with Corbett's (Table 4).

Since then there has been little in the psychiatric literature until an interesting contribution by Goldberg *et al* (1994), which confirmed the high prevalence of personality disorder in this population, suggested some interesting clusters of personality profiles and sought to find common ground between the Standardised Assessment of Personality and DSM-III systems of classification.

Table 3
Main psychiatric syndromes in learning disability

Psychiatric syndrome	Prevalence
Behaviour and personality problems	↑
Neurotic disorders	
Organic dementia	
Functional psychoses	
Autistic-spectrum disorders	

Table 4
Distribution of personality types in 100 adults with learning disability

Dominant personality type	Grading		Total (sum of grades 1 and 2)	Male	Female	Epilepsy
	1	2				
Self-conscious	3	0	3	2	1	1
Schizoid	4	0	4	4	0	0
Paranoid	0	2	2	1	1	1
Cyclothymic	7	4	11	3	8	3
Obsessional	2	0	2	1	1	1
Anxious	0	0	0	0	0	0
Neurasthenic	0	1	1	1	0	0
Sociopathic	1	3	4	2	2	0
Explosive	12	5	17	13	4	7
Hysterical	5	7	12	5	7	2
Total						
abnormal	34	22	56	32	24	15
normal	-	-	44	19	25	10

There is room for much more intensive study of personality disorder in people with learning disability, with consideration of issues of management, community care, the relationship to frank psychiatric disorder and to forensic aspects such as detainability under the Mental Health Act. One small survey (Ballinger & Reid, 1988) suggested that personality disorder was a significant determining factor in relation to discharge from hospital and community living.

General issues

Studies of overall prevalence have been admirably summarised by Jacobson (1990). He notes that these surveys are bedevilled by problems of definition, sampling and a profusion of rating scales. Aman (1991b) has done a major service by collating and evaluating these instruments for assessing emotional and behavioural disorders in people with learning disability, and this database will be of great help to anyone planning to conduct a prevalence survey in this field.

There has also been progress in the area of pharmacotherapy. There are no major new insights, but whereas pharmacotherapy a few years ago was haphazard and idiosyncratic, it is now mainstream and there are reviews available by, for example, Sovner (1988) and Aman (1991a). In reality, however, there are still very few substantial drug trials in the field of mental handicap. Reports are often anecdotal and uncontrolled, and they become elevated through the passage of time and frequent citation into large-scale scientific studies; that they certainly are not. This is regrettable for we greatly need to make some psychopharmacological progress with problems such as aggressiveness and episodic dyscontrol phenomena.

Finally, there was a scholarly study in 1991 by Rogers *et al.*, of the motor disorders of severe mental handicap. This cast doubt on the too-ready attribution of motor disorders to phenothiazine medication, drew attention to the ubiquitousness of the phenomena among people with more severe degrees of learning disability, and convincingly refuted the suggestion that these motor disorders are pathognomonic of schizophrenia. Instead the authors suggest that the bulk of these motor disorders would best be classified as extrapyramidal phenomena and an expression of the underlying cerebral disorder.

Psychiatric issues and service delivery

In this area, there has been a major input. There is now widespread recognition that psychiatric, behaviour and personality disorders are important issues in determining patterns of residential care for people with learning disability, and may in fact be the decisive factor in determining the success or otherwise of life in the community. Table 5 illustrates the distribution of psychiatric diagnostic categories in 100 randomly selected adults with learning disability in hospital, and the relationship of psychiatric diagnosis to their continuing residential care needs (Ballinger *et al.*, 1991).

The following pattern of service delivery reflects the local view on health service requirements for a population of 400 000 in Tayside.

- (a) A mixed-sex unit for the short-term assessment and treatment of 12–15 adults with a learning disability and an intercurrent episode of mental illness: for example, a manic or depressive psychosis, or an exacerbation of a schizophrenic psychosis. This unit also has a respite care function.

Table 5
ICD-9 psychiatric diagnosis and long-term hospital care needs of 100 people with learning disability

	No. with main psychiatric diagnosis	No. needing in-patient care
Organic psychosis (290, 294)	3	0
Schizophrenia (295)	5	1
Affective psychosis (296)	5	2
Paranoid states (297)	3	0
Psychosis of childhood (299)	12	8
Personality disorder (301)	17	8
Sexual deviation and disorders (302)	4	2
Special symptoms or syndrome (307)	5	0
Non-psychotic mental disorder following brain damage (310)	2	0
Disturbance of conduct (312)	15	0
Hyperkinetic syndrome of childhood (314)	9	7
None	20	2

- (b) Two mixed-sex 10-place units with some security provision for the following two main categories of patient:
- (i) Those with severe learning disability and major problems of behaviour, for example self-injury, biting, persistent hyperkinesis and aggressiveness.
 - (ii) Those with mild learning disability and severe treatment-resistant mental illness, or personality disorder associated with significant dangerousness, for example, paedophilia or fire-raising, or combinations of the above.
- (c) Complementary day hospital provision for behaviourally disturbed people with severe learning disability living in community settings, either at home, in suitably supported housing or in hostels.
- (d) A further mixed-sex combined 10-place residential, 10-place day hospital facility which meets the needs of the less dangerous and disturbed, but still difficult to manage, mildly retarded offender population. It serves as a focus for community supervision and court diversion schemes, and the management of people with mild learning disability and associated alcohol problems, problems in sexual relationships and behaviour, and in social skills and competence.

These specialist facilities serve as a resource centre for outreach work through multidisciplinary community teams including community psychiatric nurses, social workers, psychiatrists, psychologists and specialist therapists. This outreach work is

numerically much greater of course, and of greater overall impact on services to people with learning disability in the community.

The group of people with severe learning disability and associated intrusive, persistent and substantially treatment-resistant behaviour disorders pose a major clinical and ethical challenge to their carers and to the health and social services, however. Likewise those people with mild learning disability and treatment-resistant mental illness, or personality disorders combined with dangerousness, need skilled and specialist consideration. It is in no-one's interest for the gap between local services and the Secure Hospitals to become unbridgeable. For example:

Peter is aged 35, and in the mild range of retardation with an IQ of around 55. He suffers from schizophrenia which is satisfactorily treated with a depot preparation. In addition, however, he likes a drink, and both when under the influence of alcohol and when sober, he has an undisguised and persistent penchant towards pubescent girls. He has no concept of right or wrong, no understanding of the feelings and indeed the terror of the young people he propositions, and he has offended repeatedly over 15 years. He needs treatment for his schizophrenic psychosis and supervision for his unacceptable sexual behaviour. In a limit-setting environment in his local hospital unit he is contented, easily managed and partakes of a reasonably wide range of social and occupational activities consonant with his need for supervision.

Peter illustrates the multiplicity and interlocking nature of the psychiatric, personality and behaviour disorders, the varying dependency needs and the issues of dangerousness that arise in a small number of adults with learning disability.

Conclusion

In conclusion, therefore, the service is unrecognisable as compared with 25 years ago. The psychiatric aspects which were peripheral, are now at the centre. There are academic departments in the psychiatry of learning disability, books on the subject (Reid, 1982; Dosen *et al.*, 1990; Matson & Barrett, 1992), and many more conferences and journals. There are still major gaps in knowledge, however, even at the basic descriptive psychopathological level, and learning disability remains a fruitful and worthwhile area of clinical psychiatric research.

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