

COMORBIDITY IN CHILDREN WITH MENTAL RETARDATION

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ABSTRACT

This study was conducted in the child psychiatry unit of a tertiary psychiatric hospital. 60 patients diagnosed to have mental retardation according to ICD-10 (WHO, 1992) criteria constituted the study sample. A psychiatric disorder was present in 56.17% of the cases, and a medical disease was present in 35.0%. Only 13.3% cases had both a psychiatric as well as medical illness. Patients with a psychiatric illness were found to have a lesser degree of retardation. The commonest psychiatric disorder observed was behavioural and emotional disorders, while the commonest medical illness found was epilepsy. Patients with a medical illness were found to have a negative family history for a mental illness, and were much younger at the first consultation compared to the patients with a psychiatric illness. The above findings have been discussed, with emphasis on issues like dual diagnosis and diagnostic overshadowing.

Key words : Mental retardation, comorbidity, psychiatric disorder, medical illness, dual diagnosis, diagnostic overshadowing

The possibility that psychiatric disorders could affect mentally retarded individuals was not considered till the late 19th century. However, now it has been clearly documented that the mentally retarded are at a greater risk of developing psychiatric disorders (Borthwick-Duffy & Eyman, 1990).

Dual diagnosis refers to the joint occurrence of mental retardation and psychiatric disorder. Various problems have been identified which causes problems in diagnosing mental disorders in the retarded, like poor or non-existent verbal skills, multiple handicaps and poor performance on various psychological tests (Padd & Eyman, 1985; Russel, 1988). The rates of dual diagnosis of mental retardation and psychiatric disorder has varied from 31% to 100% across various studies (Jacobson, 1982). One of the main reasons held responsible for this is

the way mental illness is diagnosed in the mentally retarded (Russel, 1988). Commonly patients are described as having a 'behaviour problem' rather than a defined mental disorder in many of the studies (Szymanski, 1994). Most workers adopt two extreme approaches while dealing with dual diagnosis. The first approach is a tendency to assume that any aberrant behaviour is a manifestation of mental retardation and the second approach is a tendency to view any inappropriate behaviour in a mentally retarded individual as a problem behaviour. This leads to either an underestimation or an overestimation of the prevalence of mental disorders in the retarded. The prevalence rates of mental illness has varied across studies, depending on the methods of sample selection, the definition of mental retardation, the heterogeneity of the retarded population (lumping of

different levels of severity) and the diagnostic criteria used (Russell, 1988).

The aim of this study was to find out the prevalence of psychiatric disorders in patients with mental retardation using an operationalised diagnostic criteria.

MATERIAL AND METHOD

All patients attending the child psychiatric unit (C.P.U.) of the Central Institute of Psychiatry (C.I.P.) over a one year period were screened for a diagnosis of mental retardation according to the International Classification of the diseases, tenth revision (ICD-10) (W.H.O., 1992). Only those patients who received a clinical diagnosis of mental retardation according to the ICD-10 criteria were included in the study.

The data was recorded in a semistructured proforma, which is routinely used in the CPU. The details of the Socio-demographic data, patients illness, the personal and family history were recorded in the proforma. In case of presence of any comorbid psychiatric illness, ICD-10 criteria was used to make the diagnosis. Wherever a comorbid medical illness was present, the diagnosis was made clinically and the diagnosis was confirmed by laboratory investigations (e.g. psychometry, E.E.G., CT scan or M.R.I.).

The intelligence quotient was assessed using the following tests-

Alexander pass-along test (Alexander, 1933)
 Seguin form board test (Goel & Bhargava, 1990)
 Developmental screening test (Bharath Raj, 1983)

The patients were divided into 5 groups depending on the level of retardation, which were as follows,

- a. Mild Mental Retardation (IQ range 50 to 69)
- b. Moderate Mental Retardation (IQ range 35 to 49)
- c. Severe Mental Retardation (IQ range 20 to 34)
- d. Profound Mental Retardation (IQ range less

than 20)

e. Unspecified Mental Retardation (Where IQ could not be assessed).

RESULTS

The study sample constituted of 60 patients, out of which 41 (68.33%) patients were males and 19 (31.67%) patients were females. The mean age of the patients was 10.62 ± 3.67 years.

Psychiatric comorbidity was present in 34 (56.67%) patients. The diagnostic break up of the psychiatric disorders is given in table 1.

21 (35.0%) patients had a medical disease. The diagnostic break up of the medical illnesses is given in table 1.

14 (41.18%) patients with a psychiatric disorder had mild mental retardation and 10 (29.41%) patients had severe to profound mental retardation, whereas 5 (23.81%) patients with a medical disease had mild mental retardation and 12 (57.14%) had severe to profound mental retardation.

In patients who had a psychiatric comorbidity, a medical disease was present in 8 (23.53%) patients, as compared to 13 (50.0%) patients in those who had no psychiatric comorbidity. This difference was found to be statistically significant ($p=0.03315$). The commonest medical disease which coexisted along with a psychiatric disorder was epilepsy. It was found in 7 out of 8 (87.50%) cases.

None of the patients with a medical illness had any family history of mental illness, whereas 8 (20.51%) patients without a medical illness had a positive family history of mental illness ($p=0.04161$).

The mean age of the patients with a medical disease was found to be significantly lesser than patients who did not have a medical disease (8.76 ± 4.16 years compared to 11.62 ± 2.98 years), ($F=5.937$, $p=0.018$), whereas the mean age of the patients with a psychiatric disorder was found to be higher (11.29 ± 3.36 years compared to 9.73 ± 3.93

COMORBIDITY IN CHILDREN WITH MENTAL RETARDATION

TABLE 1
SHOWING THE DIAGNOSTIC BREAK-UP OF THE PATIENTS WITH A PSYCHIATRIC DISORDER
AND MEDICAL ILLNESS ACCORDING TO THE LEVEL OF MENTAL RETARDATION

Level of retardation (N=60)	Mild MR (N=23)	Moderate MR (N=12)	Severe MR (N=11)	Profound MR (N=7)	Unspecified MR (N=7)
Psychiatric diagnoses (N=34)					
Mood disorder					
Mania	2(3.33%)	-	-	-	1(1.67%)
Depression	2(3.33%)	-	1(1.67%)	-	-
Hyperkinetic disorder	2 (3.33%)	3 (5.0%)	-	-	-
Autism	-	1(1.67%)	1(1.67%)	2(3.33%)	-
Psychosis (Unspecified)	1(1.67%)	-	2(2.33%)	-	1(1.67%)
Unspecified behavioural & emotional disorders	2(3.33%)	1(1.67%)	1(1.67%)	2 (3.33%)	3 (5.0%)
Articulation disorder	3(5.0%)	-	-	-	-
Reading/writing disorder	1(1.67%)	-	-	-	-
Eneuresis	1(1.67%)	-	-	-	-
Conduct disorder	-	-	1(1.67%)	-	-
Medical diagnoses (n=21)					
Epilepsy	3(5.0%)	1(1.67%)	4(6.67%)	3(5.0%)	2(3.33%)
Down's synd.	-	2(3.33%)	-	-	-
Congenital Rubella	-	-	2(3.33%)	-	-
Tuberous Sclerosis	-	-	1(1.67%)	-	-
Cerebral palsy	-	-	1(1.67%)	-	-
Hemiparesis	1(1.67%)	-	1(1.67%)	-	-
LMN Facial Palsy	1(1.67%)	-	-	-	-

*1 patient had epilepsy with hemiparesis

years) but it did not reach statistical significance ($F=0.830$, $p=0.366$).

DISCUSSION

In the present study 56.67% patients had a dual diagnosis, which was found to be comparable with other clinic based studies (Philips & Williams, 1975; Szymanski, 1977; Eaton &

Menolascino, 1982). The commonest disorder found in our patients was unspecified behavioural and emotional disorders (F.98), followed by mood disorders, hyperkinetic disorder, autism and psychosis (unspecified). The behavioural and emotional disorders were seen across all levels of retardation. This finding was consistent with the views of Lewis and Maclean (1982), who after reviewing the literature, had come to the conclusion that most studies

irrespective of the sample and the methodology-support an increased prevalence of behavioural and emotional disorders. Often this is the reason for referral and the focus for psychiatric intervention.

Mood disorders were found to be common in the mild level retardation. Earlier workers have observed that depression is diagnosed more often in the mildly retarded than in the more severely retarded (Ries *et al.*, 1982), as the latter may have difficulty in the communicating subjective states. Similarly the more severely retarded manic patients may be lacking in the quality of infectious gaiety and their delusions could be naive (Fraser & Nolan, 1994). Hence we have to be aware that the clinical presentation may be altered depending on the patient's communicative skills (Szymanski, 1988).

In this study, 11.76% of the patients were found to have psychosis, but none fulfilled the criteria for schizophrenia. Present sample consisted of children, and the inability to make a diagnosis of schizophrenia testifies to the difficulty in classifying bizarre behaviour in the absence of adequate verbal communication. Heaton-Ward (1977) had earlier reported that retarded schizophrenics often present with withdrawal, fearfulness, sleep disturbances etc. without complex delusional systems, which is consistent with our views. Apart from the above disorders, hyperkinetic disorder and autism were also found in the patients, which was consistent with earlier findings.

Approximately one third of the present sample were diagnosed to have a medical illness. Epilepsy was the commonest medical illness, seen in 61.90% of the patients. Epilepsy had been reported to be common among the retarded, especially the severely retarded (Corbett *et al.*, 1975). The mean age of the patients with a medical disease was found to be lower than patients with a psychiatric disorder. There could be two possible explanations for this. Firstly, the medical illness might have been more easily recognised by the family members, as compared to a psychiatric

disorder, and secondly, the children could have been brought earlier for treatment, simply because of the fact that they were having a more severe level of retardation.

It was observed that patients with a psychiatric disorder had a milder level of retardation compared to patients with a medical illness. This finding could partly be a reflection of the fact that distinguishing a behaviour disturbance from a psychiatric disorder is easier in patients with a milder degree of retardation, hence using an operational criteria for diagnosis is more feasible in such cases. On the other hand while dealing with more severely retarded patients we need to make concessions for diagnostic over shadowing (i.e., mental retardation decreasing the significance of the accompanying behaviour) (Riess & Szyszko, 1983). The other explanation for this could be the fact that patients with medical illness might have suffered from a cerebral damage which was responsible for the retardation as well as the medical illness (like epilepsy), hence the degree of retardation was more in such cases. Malformations and degenerative disorders of the central nervous system are known to be associated with the severe neurological abnormalities and cognitive impairment (Bregman & Harris, 1995).

In the present series of patients investigators did not find psychiatric illness and medical illness to coexist frequently. This was inconsistent with a biological theory, which presumes that the brain dysfunction that results in mental retardation also predisposes the individual to a mental disorder (Szymanski *et al.*, 1989). Fragile X syndrome causing retardation and pervasive developmental disorder, congenital rubella causing retardation and hyperactivity disorder or autism and epilepsy causing retardation and a wide range of psychopathology are well recognised facts (Szymanski, 1994). Interestingly the patients with a medical illness did not have a family history of mental illness, indicating a lack of genetic loading for a psychiatric illness.

In conclusion, it can be said that psychiatric disorders are more easily diagnosable in

cases with milder degrees of retardation, than in cases with more severe retardation, where one may have to make concessions for diagnostic overshadowing. In such cases, to make a clinically useful diagnosis especially in the presence of impaired language development one might have to take into consideration, facts like-behavioural changes, biological changes, family history of mental illness (Sovner, 1989) and the longitudinal history (Tyrer & Shakour, 1990), rather than solely depend on a diagnostic criterion (Szymanski, 1994) or else this could lead to therapeutic nihilism, as we might not make an attempt to treat such cases adequately.

This was a clinic based study, which dealt with referred patients which might not have been truly representative of the general population. Nevertheless, it has given us numerous insights into the problems of the patients who reach us. One major limitation of this study was that no specifically designed instrument for the retarded was used to assess the psychopathology.

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