

Psychiatric diagnosis in persons with intellectual disability in India

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Abstract

Background This study examines the rate of psychiatric diagnosis as per ICD-10 and Reiss Screen for Maladaptive Behaviours (RSMB), and distribution of psychiatric diagnosis with regard to the severity of intellectual disability (ID). It also explores the degree of agreement between Reiss screen and clinical diagnosis (ICD-10) in relation to dual diagnosis.

Methods In this study Intelligence (IQ) and Social Quotient (SQ) were estimated on Indian adaptation of Binet's scale and Vineland Social Maturity Scales, respectively, in 60 consecutive persons with ID. Both ICD-10 and RSMB were used independently to determine the presence of psychiatric diagnosis.

Results Clinically, according to ICD-10, about 60% of the sample was found to have dual diagnosis as compared to 48% on RSMB. Agreement between ICD-10 and RSMB about psychiatric comorbidity was 82%. Commonest psychiatric diagnosis was unspecified psychosis followed by bipolar affective disorders.

Conclusion Persons with ID do suffer from various psychiatric disorders. RSMB is a useful tool for dif-

ferentiating between psychiatric problems and maladaptive behaviours. Hence RSMB can be used in the Indian context.

Keywords dual diagnosis, ICD-10, intellectual disability, psychiatric disorders, RSMB

Introduction

The concept of dual diagnosis in psychiatry has been in use since long ago. However, its use in the field of intellectual disability (ID) is of recent origin. The term refers to the coexistence of psychiatric disorders with ID (Matson & Sevin 1994; Szymanski 1994; Szymanski & Wilska 1997; Sturmey 2002). Comorbid psychiatric diagnoses will affect the overall management hence it is important to understand the prevalence and nature of psychiatric diagnoses.

After an extensive review of literature, Borthwick-Duffy (1994) reported, in general, the rate of psychiatric diagnoses in ID varies between 10% to more than 80%. In subsequent studies the prevalence rates were reported in this range only (Philips & Williams 1975; Das 1996; Kar *et al.* 1996; Khess *et al.* 1998; Stromme & Diseth 2000; Deb *et al.* 2001a; Molteno *et al.* 2001).

A wide range of psychiatric disorders are associated with ID. Unspecified psychosis (Philips & Williams

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1975; Eaton & Menolascino 1982; Lund 1985), unspecified behavioural and emotional disorders (Khess *et al.* 1998), hyperkinesia and pervasive developmental disorders (Jena 1999; Stromme & Diseth 2000) were reported to be highly prevalent diagnoses.

In India, there has been a growing commitment and interest to develop basic facilities for individuals with ID, more so with the introduction of Person with Disabilities Act (Ministry of Law, Justice and Company Affairs 1995). However, most of the services are restricted to special education services and early intervention programmes thus mental health of persons with ID is almost a neglected area. There are very few studies in India on psychiatric disorders in ID (Das 1996; Kar *et al.* 1996; Khess *et al.* 1998; Jena 1999); structured tool was used in only one study (Das 1996) and the majority have used semi-structured interview schedules. Das (1996) reported a prevalence rate of 50% ($n = 36$), and the commonest diagnosis was attention deficits and disruptive behaviours (22.4%), followed by unspecified psychosis (13.9%) and other disorders of infancy and childhood (11.1%). Kar *et al.* (1996) found a prevalence rate of 50% ($n = 52$). Khess *et al.* (1998) found 56.7% ($n = 60$) of psychiatric comorbidity, and the majority had unspecified behavioural and emotional disorders (25%), followed by mood disorders (16.6%), hyperkinetic disorder (13%), autism (11.1%) and psychoses (11.1%).

An important reason for differences both in the rate and in the nature of psychiatric disorders is the methodological dissimilarity, particularly in assessment procedures, concept of ID, tools and the sampling methods used (Borthwick-Duffy 1994; Matson & Sevin 1994; Sturmey 2002). None of the earlier studies, except that by Reiss (1990), has examined the issue of variations in the rates of psychopathology in relation to assessment procedures. Reiss (1990) showed that structured assessment yields less rates (39%) of psychiatric diagnosis than that of clinical interview (60%).

Although the increased recognition given to mental health of persons with ID has given rise to the development of a considerable number of psychometric assessment devices (Sturmey *et al.* 1991), only few of them have sound psychometric properties of which Reiss Screen for Maladaptive Behaviours (RSMB) is claimed to be one. RSMB is reported to have moderate to good internal and inter-rater reliabilities, cri-

terion and concurrent validity, internal consistency and reasonable fit (Reiss 1988; Reiss & Valenti-Hein 1994; Sturmey & Bertman 1994; Haverkamp & Reiss 1997). Hence RSMB was used in the current study, although no study has been carried out in India using this tool, psychometric properties have been well established in the Western countries.

Because of the paucity of studies and to overcome the methodological difficulties highlighted above, the study was designed with the aims of: (1) documenting the rate and nature of dual diagnoses, and their distribution in relation to the severity of ID; and (2) investigating the degree of agreement between a structured interview tool (RSMB) and clinical diagnosis (ICD-10; World Health Organization 1992) in an Indian context.

Method

Sample

This cross-sectional study was carried out with outpatients from two sites, Central Institute of Psychiatry (CIP) and Deepshikha Institute for Child Development and Mental Health (ICD & MH), Ranchi, India. Participants ($n = 60$) of the study were aged between 12 and 55 years. Lower limit was kept at 12 years to suit RSMB scale, and the higher limit was kept at 55 years, beyond which we seldom come across persons with ID and psychiatric comorbidity in the clinical set-up. Participants had behavioural problems for more than 2 months and were accompanied by parents. Consent was obtained from the informants. Participants were included in the study through purposive sampling method.

Measures

All participants were assessed with Stanford-Binet Intelligence Scale: L-M form, an Indian adaptation of the Binet scale (Kulshreshta 1971) and Vineland Social Maturity Scale (Indian adaptation by Malin; revised by Bharat Raj 1992) to determine the Intelligence (IQ) and Social Quotient (SQ) scores, respectively. These tests have been used extensively in India, and they were found to have good psychometric properties (Jayashankarappa 1986; Bharat Raj 1992). Depending on the scores yielded on these two tests the diagnosis of ID was confirmed as per ICD-10

Table 1 Distribution of psychiatric disorders across different levels of intellectual disability (ID) ($n = 60$)

Level of ID	Psychiatric diagnosis				Total n (%)
	Nil n (%)	Psychosis n (%)	Affective n (%)	Others n (%)	
Mild ($n = 22$)	4 (18.2%)	6 (27.3%)	10 (45.5%)	2 (9.2%)	18 (50%)
Moderate ($n = 26$)	9 (34.6%)	12 (46.2%)	3 (11.5%)	2 (7.7%)	17 (47%)
Severe ($n = 12$)	11 (91.7%)	1 (8.3%)	0 (0)	0 (0)	1 (3%)

criteria. A detailed mental status examination and interviewing of informants were carried out to make clinical psychiatric diagnosis as per ICD-10 criteria. In addition, RSMB (Reiss 1987) was also used and interpreted according to Reiss Screen Test Manual (Reiss 1988) to screen psychopathology.

Statistical analysis

Percentages were calculated for socio-demographic and clinical variables and to find out the agreement between diagnoses made by ICD-10 and RSMB. Mean and standard deviation was calculated for age. Severity of ID and psychiatric disorders were the variables studied.

Results

Of the 60 persons, 46 (76.7%) were males, 52 (87%) were single. The mean age was 21 (SD = 6.98) years. Thirty-seven per cent ($n = 22$) had some kind of formal education, 25% ($n = 15$) had special education and 38% ($n = 23$) had no education at all. The majority of the sample were from middle socio-economic status (67%), urban background (48.3%) and CIP (75%). Among the participants, 22 (36.7%) had mild ID, 26 (43.3%) had moderate ID and 12 (20%) had severe ID. The severe ID group includes persons with IQ below 35, which included two persons with profound ID for statistical purposes.

In the present study 40% had no psychiatric diagnosis. Unspecified psychosis was the commonest psychiatric diagnosis (16.7%) followed by bipolar affective disorder (13.3%) and schizophrenia (10%), which included both paranoid and undifferentiated subtypes. Three (5%) had single episode mania and two (3.3%) each had depression and autism. One

Table 2 The degree of agreement between ICD-10 and Reiss Screen for Maladaptive Behaviours (RSMB) for psychiatric diagnosis

		RSMB		
		Yes n (%)	No n (%)	Total n (%)
ICD-10	Yes	27 (45)	9 (15)	36 (60)
	No	2 (3)	22 (37)	24 (40)
	Total	29 (48)	31 (52)	60 (100)

Overall agreement between ICD-10 and RSMB was 82% ($n = 49$).

person each had delusional disorder, personality disorder, conduct disorder, substance abuse and obsessive-compulsive disorder.

Analysis of clinical diagnoses revealed that in the mild ID group, the majority (45.5%) had affective disorders, followed by psychosis (27.3%), behaviour disorder (18.2%) and other psychiatric disorders (9.1%). In the moderate ID group, the majority had psychosis (46.2%) followed by behavioural disorder (34.6%) and affective disorders (7.7%). In severe ID group the majority (91.7%) had behaviour problems, followed by psychosis (8.3%) (Table 1).

According to clinical examination, about 36 (60%) patients were found to have an ICD-10 psychiatric diagnosis. While only 29 (48%) were found to have dual diagnosis on RSMB. In this study general agreement between clinical diagnosis and RSMB is 82% (Table 2).

Discussion

Most often psychiatric disorders are either under- or over-diagnosed in ID. Apart from the methodological differences, often clinical experience can affect beliefs

and the environment in which the evaluation was performed or the training of the professionals influences the diagnostic decision. When someone considers ID synonymous with mental illness, there may be a tendency to over-diagnose. If the belief were that persons with ID are immune to mental health problems, this would lead to under-diagnosis. If a child goes to a psychiatric setting, the chances of becoming false positive for psychiatric disorder would increase and vice versa with special school setting. Nonavailability of reliable tools can also lead to over- or under-diagnosis. It is thus imperative to have a valid screening instrument to give accurate inference about the mental health of persons with ID. Although a lot of research has already been carried out to overcome these fallacies, more is yet to come (Sturmey 2002).

Now India has various Acts for the special people, important being the Persons with Disabilities Act (Ministry of Law, Justice and Company Affairs 1995) whose objectives are providing equal opportunities, protection of rights and full participation of the disabled. Developing assessment methods to make appropriate interventions for the mental health of persons with ID, we believe, is a step in this direction.

Prevalence rates in the West fall in very broad range as compared to a steady range of 50–64% in India (Borthwick-Duffy 1994; Das 1996; Kar *et al.* 1996; Khess *et al.* 1998; Jena 1999). Consistent with the earlier studies from India, in the present study 60% had a clinical psychiatric diagnosis, and 48.3% as measured by the RSMB. The prevalence rate obtained on clinical evaluation is exactly the same as that found by Reiss (1990). The difference between the clinical judgements and RSMB highlights the tendency to fit behavioural problems in persons with ID into some diagnostic category.

Consistent with previous studies (Philips & Williams 1975; Eaton & Menolascino 1982; Lund 1985), unspecified psychosis was the major subtype (16.7%). It may result from the inability of the individuals to express problems because of low cognitive abilities (Weisblat 1994) or lack of certain key symptoms for making a definite diagnosis, which increases the possibility of such diagnoses.

In the present study, affective disorders were the second commonest diagnoses. Bipolar affective disorder was found in 13.3% of cases, which is higher compared to any other study, and mania was found four times higher than the rates reported in the West

(Heaton-Ward 1977; Bouras & Drummond 1992). Depression was found in two persons with mild ID (3.33%) characterized by aggression, withdrawal behaviours, sleep problems, anhedonia and subjective perception of low social support (Kazadin *et al.* 1983; Fraser & Nolan 1994). These findings support the views of Sovener & Hurley (1983) that affective disorders are easy to recognize and diagnose than other psychiatric disorder.

In schizophrenia, undifferentiated subtype was the commonest in contrast to paranoid schizophrenia reported by Western studies (Day 1985; Bouras & Drummond 1992; Salvador-Carulla *et al.* 2000). Observational findings revealed that history of schizophrenia was same as that of nonretarded schizophrenics although formal thought disorder was difficult to make out (Reid 1972; Heaton-Ward 1977; Meadow *et al.* 1991). Only one case had shown delusional disorder, predominantly delusions of infidelity and persecution, which is consistent with the findings of Salvador-Carulla *et al.* (2000). This shows the difficulty in subtyping schizophrenia and/or any specific psychotic disorder.

Interestingly, personality and conduct disorders were found in people above the age of 18 years and the prevalence was lower than previous studies (Philips & Williams 1975; Gillberg *et al.* 1986; Bouras & Drummond 1992; Jena 1999).

In this study, affective disorders were found more in the mild ID group and psychosis in the moderate ID group (Deb *et al.* 2001a; Richard *et al.* 2001). None of the persons in severe ID group could be identified to have any specific psychiatric disorder, which points to the diagnostic difficulty as severity of ID increases (Rutter *et al.* 1976; Borthwick-Duffy & Eyman 1990; Deb *et al.* 2001b; Molteno *et al.* 2001). Therefore, it is still a matter of debate whether rates of psychiatric disorders in severe ID group are really less or clinicians fail to understand the psychopathology in them because of their poor language and cognitive skills.

The agreement between ICD-10 and RSMB about the dual diagnosis was 82%. This is comparable to 81.1% for the Illinois sample and 72% of the Chicago sample (Reiss 1988). This strengthens the proposition that the overall cut-off point on RSMB can be used reliably in Indian settings to screen out psychiatric disorders in persons with ID. However, one limitation of RSMB is lack of a subscale for mania, because of

which the persons with a clinical diagnosis of mania tend to score high on psychosis and aggression subscales. At least in the Indian setting this has to be kept in view while using RSMB.

In conclusion, decisions regarding psychiatric diagnosis are crucial because in the absence of an appropriate psychiatric diagnosis a child will not be able to get the mental health services so crucial for his overall well-being. At times, this factor is also aggravated by the attitudes and expertise of the professionals. This obstacle can be overcome by using a standardized tool like RSMB.

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