

Management of Learning Disabilities

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(English)

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16 August 2010

To the Chairman and President
Central Travancore Psychiatric Society & Indian Psychiatric Society
Rehabilitation Specialty
Kerala
India

Dear Sirs

Congratulations are due to the Indian Psychiatric Society for all their hard work in organising such an interesting and worthwhile programme. With so many eminent speakers, the Conference cannot fail to be a great success.

On behalf of the Royal College of Psychiatrists I would like to send my very best wishes for the Learning Disability Workshop and Conference taking place on 21-22 August 2010 in Kottayam, Kerala for a very successful meeting and hope that this highlights the needs of people with learning disabilities.

Kind regards

Yours sincerely

Professor Dinesh Bhugra
MA, MSc, MBBS, FRCPsych, MPhil, PhD
President

Contents

1. About Authors	5
2. Treatment of Epilepsy and related Psychiatric or Behavioural Problems in people with Intellectual Disability (ID)	10
Dr. Sab Bhaumik, OBE, FRCPsych (UK)	
3. Autistic Spectrum Disorders - Approaches to Diagnosis and Treatment	20
Dr Sab Bhaumik, OBE, FRCPsych (UK)	
Dr Satheesh Gangadharan, MD, FRCPsych (UK)	
4. What is Learning Disability	30
Dr. V. K. Radhakrishnan MD (Nimhans)	
5. Work-based Learning and Vocational Rehabilitation in Learning Disability	33
A Smith, M Petty, I Oughton & RT Alexander	
6. Understanding The Problem Child - In Clinic, School And Community	40
Dr Varghese P Punnoose MD	
7. Vulnerability and mental well being in people with mental disability	54
Dr. Roger Banks FRCPsych ,FRCGP(Hons)	
8. Health of the Carer	59
Dr. Ninan Kurian	
9. Attention Deficit Disorder	62-
Mathew Kanamala	

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Dr Sabyasachi Bhaumik was the current Chair of the Faculty of Psychiatry of Learning Disability of the UK's Royal College of Psychiatrists between 2006 and 2010. He is also the Medical Director of Leicestershire Partnership NHS Trust and an Honorary Senior Lecturer at the University of Leicester. A practising clinician with an extensive research record, Dr Bhaumik has published more than 40 papers in peer-reviewed journals and is the joint editor of the only National Prescribing Guideline in Learning Disability in the UK, 'The Frith Prescribing Guidelines for Adults with Intellectual Disabilities'. Regionally and nationally, he has had an active role in shaping specialist healthcare provision for people with learning disabilities and has served in a number of capacities including as the Clinical Lead in Learning Disability for the Lord Darzi Review for the East Midlands Strategic Health Authority. In 2005, his clinical team at Leicester Frith Hospital won the prestigious UK Hospital Doctor award for the Psychiatry team of the year. In 2006, Dr Bhaumik was awarded an OBE by the Queen. He has been actively involved in a number of international collaborations, with a particular focus on South Asian countries.

Dr. Regi Tharian Alexander FRCPsych

Dr Regi Tharian Alexander is currently the Academic Secretary of the Faculty of Psychiatry of Learning Disability of the UK's Royal College of Psychiatrists. After graduating from Trivandrum Medical College in 1989, he underwent post-graduate training in Psychiatry at the National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore and the St Mary's Hospital Psychiatric Training Scheme, London. He won the DLN Murthy Rao Memorial Prize for the best outgoing student from NIMHANS in 1993, the Alex Shapiro Prize from the Royal College of Psychiatrists in 1999 and the Natalie Cobbing Travelling Fellowship in 2002. Having worked in the UK for over 16 years now, he is currently a Consultant Psychiatrist at St John's House in Norfolk, a secure hospital for people with learning disability and offending behaviours run by Partnerships in Care. Dr Alexander is an Honorary Visiting Clinical Fellow at the University of Leicester, a teacher at the Cambridge MRCPsych course and an examiner for the Royal College of Psychiatrists' MRCPsych examination. He has active research interests and is a widely published author of research papers particularly on health services models, personality disorders and forensic issues in the Psychiatry of Learning Disability.

Ms Louise Talbot RCSLT, BSc Speech Pathology and Therapy

Louise Talbot is a Speech and Language therapist with 27 years experience. She qualified in 1983 from Manchester University and initially worked in Germany as a speech therapist for the UK Ministry of Defence and later in Leicester. Subsequently, she worked for the Learning Disability Charity, Mencap setting up an adult day service while also working as an expert witness in a number of high profile landmark cases. She worked free lance as a Management Development Officer for both Rutland County Council and the Association for Real Change helping to write Open University Modules, the Person Centred Planning framework and National Vocational Qualifications in Health and Social Care. Ms Talbot was the Registered Manager of a 20 bedded residential and working community for 6 years before moving on to become an administrator/ manager of a charity providing residential, day care and respite care services to adults with learning disabilities for a further 6 years. They were one of the first sites to implement supported living and were influential in the piloting of this approach in the UK. In 2003, she returned to working for the UK National Health Service (NHS) and achieved an award for leading the development of a training package to promote positive communication for people with learning disabilities that has been delivered across the region to over 1000 people. She currently works as the Manager of Agnes Unit, a specialist unit for the assessment and treatment of adults with learning disabilities in Leicester whilst continuing to work privately as a speech and language therapist. She is also the director of a company that is committed to supporting the evolution of learning disability services in developing countries. Through this and as part of the NHS Links initiative, she has delivered training in Nigeria and India (Hyderabad, Bangalore, Mangalore).

Dr. Satheesh Kumar Gangadharan MD DNB FRCPsych

Dr Satheesh Gangadharan trained in Thiruvananthapuram and Calicut Medical Colleges and worked in the National Institute of Mental Health and Neurosciences, Bangalore as a Senior Resident before moving to the UK in 1996. He has been a Consultant Psychiatrist in the Learning Disability Service at Leicestershire Partnership NHS Trust for seven years and is currently both the Clinical Director of the Service and the Strategic Lead for Learning Disability within the local Primary Care Trust. He is an elected member of the Psychiatry of Learning Disability Faculty in the Royal College of Psychiatrists and is the lead for improving services for people with Learning Disability from minority ethnic communities. His special interests include Dementia and age related

problems in people with LD as well as the development of Clinical Networks in Learning Disability. He has good experience in developing and delivering training modules and a good track record of research with a number of publications in this area.

Dr. Roger Banks

Roger Banks is current Vice-President of the Royal College of Psychiatrists (Royal College of Psychiatrists, 17 Belgrave Square, London SW1X 8PG, UK. Email: rbanks@rcpsych.ac.uk) and Consultant in the Psychiatry of Learning Disability with Conwy and Denbighshire NHS Trust. He is also Honorary Senior Lecturer at the College of Health and Behavioural Sciences, Bangor University.

Dr. Ninan Kurian

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Dr. Paul Russell

Dr. Paul Russell is the Professor of Psychiatry and head of Child and Adolescent Psychiatry Unit as well as the Facility for Children with Intellectual Disabilities, Christian Medical College, Vellore.

After graduating from Tirunelveli Medical College and completing his postgraduate training in psychiatry in CMC, Vellore he joined the Child and Adolescent Psychiatry Unit and has worked with children with various mental health needs for the past 19 years. He has trained over the years, undergraduate, postgraduate and doctoral level medical and non-medical trainees in the discipline of child and adolescent psychiatry.

He has been bestowed with academic merit award during his training. He also is the recipient of the INDIACLEN Best Young Scientist Award, which is a national recognition for research work. He is in the editorial board of many international and national journals in the field of child and adolescent psychiatry as well as Intellectual Disability. He is the author of about 57 international and national scientific articles in the same disciplines. In addition, he has written many chapters in text books as well as edited books.

His current projects include delineating the diagnostic criteria, clinical features, course and prognosis of Post traumatic Stress Disorder in children with intellectual Disability. He has been instrumental in starting the School adolescent mental health program in TamilNadu. He is presently editing two of the classical text books on child development by Professor Illingworth.

Maggie Petty BEd MPhil

Maggie Petty currently works as a Learning Disability teacher for Partnerships in Care, a leading provider of secure mental health facilities in England. Her first degree was gained from the University of Bristol and she carried out a local authority comparative study in Special Needs Education at the University of Exeter for her M Phil. She has worked in a wide variety of roles in the Learning Disability field since 1976. These roles have included teaching children in all phases of education and as a maths teacher for adult education services. She has held a senior leadership and management role in a multidisciplinary assessment centre and a variety of SEN settings within a local authority. From an early stage in her career she has maintained a commitment to multi-professional work. Maggie Petty has collaborated on a project report 'The World of Difference' with a focus on different special educational needs for Anglia Polytechnic University. She has supervised Masters students carrying out research at Suffolk-Anglia Ruskin University Postgraduate Centre. Since 2008 she has contributed to a work-based rehabilitation programme linked with a charity and a further education institution. An extension of this work is the identification of pre-employment skills and qualifications geared to the needs of adults with learning disabilities.

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Treatment of Epilepsy and related Psychiatric or Behavioural Problems in people with Intellectual Disability (ID)

Dr. Sab Bhaumik, OBE, FRCPsych (UK)

Epilepsy is a condition characterised by recurrent (two or more) epileptic seizures unprovoked by an immediately identifiable cause. An epileptic seizure is a clinical manifestation presumed to result from an abnormal and excessive discharge of a set of neurones in the brain. Some specialists consider that a single seizure associated with electroencephalogram (EEG) changes may have a high chance of recurrence and therefore be included in the definition of epilepsy.

The classification of seizures depends on whether the onset of the seizure begins locally or not; and on the nature of other symptoms and signs occurring during the seizure. The distinction between simple and complex seizures based on whether consciousness is impaired or not during a seizure is contentious; the two are not easily distinguishable, particularly in those with limited speech.

For the classification of Epilepsy please read the International League Against Epilepsy and Epileptic Syndromes, Commission on Classification, 1989

The causes of epilepsy may be genetic, congenital or acquired. However, in many patients with ID the cause is unknown. A genetic abnormality may result in epilepsy alone or in epilepsy with other neurological manifestations as is found, for example, in Down syndrome and tuberous sclerosis. Many of the inborn errors of metabolism are associated with epilepsy. Most of these are very rare; and some are treatable eg phenylketonuria and pyridoxine deficiency. Susceptibility to intercurrent infections and a lowering of the

seizure threshold by certain drugs may increase an individual's risk of developing epilepsy.

Certain causes of epilepsy are particularly likely to be related to the development of chronic epilepsy from childhood. Other causes are more likely to be associated with the development of epilepsy in adolescence. Causes such as the development of dementia in people with Down syndrome may be associated with even later development of epilepsy in adulthood.

The commonest cause of most epilepsy in people with ID is developmental. The brain passes through four main stages after the dorsal and ventral involutions of the embryonic neural plate; and at each there is the potential for abnormalities to develop.

Diagnosis

Epilepsy is often difficult to diagnose in individuals with ID. They often have disordered cerebral anatomy or other cerebral pathology, which may alter the presentation of epilepsy. People with ID often lack the ability to give a subjective account of their seizures. For these reasons, good quality cerebral imaging such as Magnetic Resonance Imaging (MRI) may also be useful. EEG and MRI can be offered to people with ID by well-trained staff, with the support of aids such as domiciliary EEG monitoring or echo planer MRI where it is available and sedation or light anaesthesia where it is not.

Many other phenomena that occur in this population may be mistaken for epilepsy:

- ⇒ severe persistent EEG abnormalities (often mislabelled 'status epilepticus')
- ⇒ dystonias, rocking, head movements such as nodding,
- ⇒ tongue thrusting
- ⇒ abnormal postural reflexes (opisthotonus) or tonic neck reflex
- ⇒ stereotypical behaviours including chewing, buccal and autistic behaviours
- ⇒ eye movements, eye deviation and nystagmus
- ⇒ respiratory phenomena such as tachypnoea, apnoea and periodic breathing

- ⇒ startle phenomena
- ⇒ non-epileptic myoclonic phenomena
- ⇒ sleep phenomena such as Sandifiers syndrome.

Prevalence, associations and service implications of epilepsy

Epilepsy is a common condition. Studies in the general population show that the incidence rate is 50-120 per 100,000 people a year. The highest incidence rates are observed in babies and young children; and in older persons. The prevalence rate is 0.5-1.0% a year. The lifetime risk of an individual developing epilepsy is 3-5%. There is a greater prevalence of epilepsy in those with intellectual disability (ID) than in the general population. In general, the more severe the degree of ID, the more likely it is that epilepsy will be present and the more severe that epilepsy is likely to be. Overall, 25% of individuals with ID have epilepsy, increasing to about 50% in those with severe/profound ID. If an individual with severe ID has seizures at the age of 22, there is a 40% probability of seizures having been present for over 10 years. This indicates how chronic epilepsy can be in people with ID. The relationship between an ID and epilepsy may be explained in a variety of ways.

Most studies have involved children with epilepsy and ID rather than adults. Key studies of the epidemiology of epilepsy in children with ID have found:

- ⇒ Greater incidence of new cases appeared between ages 1-4 years.
- ⇒ Children with an IQ lower than 50, one third had a history of seizures and 19% had at least one seizure during the previous year.
- ⇒ By the age of 22, 15% of children with ID had epilepsy and an additional 7% had at least one seizure.
- ⇒ Children with a history of post-natal injury suffered a much higher risk of epilepsy.

Despite this high prevalence of epilepsy there are remarkably few studies of adults with ID. Key studies of the epidemiology of epilepsy in ID have found:

- ⇒ There was no significant difference in the prevalence of epilepsy in South Asians and whites. Studies in the general population have reported

a higher prevalence of epilepsy in blacks compared with whites

- ⇒ Studies in the general population have reported a higher prevalence of epilepsy in lower socio-economic groups. Most adults with ID have restricted opportunities for paid employment or car ownership and derive their income from state benefits, making it difficult to use indicators of socio-economic group in a meaningful way for internal comparisons.
- ⇒ Studies that have looked at the nature and course of the epilepsy in ID have found
- ⇒ The presence of both epilepsy and ID are indicators of both early mortality and psychiatric disorder.
- ⇒ the prevalence of epilepsy in ID remaining constant for much of the period 20 years - 60 years

Many studies might lead one to believe that for any adult ID service the sole role in relation to epilepsy is to continue treatments successfully started by paediatricians and to withdraw treatments when appropriate. For many adults with ID though the occurrence of epileptic seizures still remain a major problem. Of the seizure types suffered the most common is tonic clonic (approx 60%). However many suffer from more than one seizure type. In one study absence seizures also occur in 30%, myoclonic jerks in 20%, tonic seizures in 14% and partial seizures in 13% of those who suffered tonic-clonic seizures. Myoclonic jerks also occurred in 30%, tonic seizures in 16% and partial seizures in 21% of those who suffered absence seizures.

Epilepsy and autism

One third of individuals with autism develop epilepsy during adolescence. This may be because autism is a final presentation of a variety of abnormalities of brain development and dysfunction that are also seen in people with epilepsy. No specific epileptic syndrome is evident with autism, although there are syndromal associations such as tuberous sclerosis, Sturge-Weber syndrome and Rett syndrome.

Epilepsy and Down syndrome

Approximately 10% of adults with Down syndrome have epilepsy, increasing to 40% of those over the age of 40 and to 80% of those with Alzheimer's disease. There are 3 peaks in the incidence of epilepsy during

the lifespan of an individual with Down syndrome:

- ⇒ In early childhood, there is a particular association between epilepsy and West syndrome. In those with Down syndrome, West syndrome is more benign, with more myoclonic seizures and more easily controlled than in those without Down syndrome.
- ⇒ During the third decade of life, a rise in epilepsy among people with Down syndrome appears to be the equivalent of the increased incidence of partial epilepsies seen in adolescent individuals without ID. This is thought to be related to myelination and proliferation of a sufficient bulk of nerves and synapses to connect abnormal areas of brain and thus allow paroxysmal spread.
- ⇒ Epilepsy in Down syndrome finally peaks with the development of Alzheimer's disease in those over the age of 40. In 60% of individuals seizures start after the clinical onset of dementia. The seizures are usually tonic-clonic, although myoclonic seizures may be particularly prominent. Inter-ictal EEGs often show only non-specific slow wave changes.

In addition to these increased incidences of epilepsy in Down syndrome, certain forms of epilepsy are less common than might be expected. For example, despite the increased incidence of infections in infants with Down syndrome, febrile convulsions are rare. There is also a lower incidence of Lennox-Gastaut syndrome, an important cause of severe epilepsy in people with ID. The mechanisms by which epilepsy is generated in Down syndrome are not entirely clear, though it has been suggested that the following characteristics of the brain are relevant:

- ⇒ a small brain with abnormal neocortical cytoarchitecture
- ⇒ reduced number of granule cells - possibly inhibitor GABA cells
- ⇒ abnormal morphology of neurones and dendrites - this may enhance excitability
- ⇒ altered neuronal physiology and membrane reactivity
- ⇒ neurotransmitter abnormalities of 5-HT and glutamate.

There are a variety of causes of 'funny turns' in people with Down syndrome, including breath-holding, behaviour disturbance, heart

dysrhythmias, sleep disorders and many undiagnosable episodes. Therefore, careful assessment with observation EEG and scanning is vital. If epilepsy is diagnosed, treatment is often effective.

Epilepsy and behaviour disorders

Behaviour problems are not uncommon in people with ID and active epilepsy. Often these behaviours have other causative factors such as maladaptive learned behaviour or inter-ictal major mental health problems. For a significant minority, however, the behaviours may be directly linked to the epileptic activity. These behaviours may occur pre-ictally (aura), ictally (eg temporal lobe epilepsy) or during a post-ictal confusional state. Rarely, prolonged ictal activity such as an atypical absence may present entirely as a behaviour problem. Ideally, ambulatory EEG monitoring should be used to confirm the diagnosis.

Multiple seizure types

Many people with ID and seizures experience more than one type of seizure. One study of an adult population with ID and seizures found that only 49% suffered from a single type of seizure. Although tonic-clonic seizures were the most common, absence seizures and myoclonic jerks occurred more frequently than in the general population with epilepsy.

Refractory epilepsy

Refractory epilepsy is the presence of seizures despite the use of optimal drug therapy. In the general population, approximately 20-30% of people with active epilepsy suffer from refractory epilepsy. The incidence is higher in those with ID. Refractoriness of seizures varies according to the underlying and concomitant conditions. For example, a 12-year follow-up study found that 79% of those with epilepsy and ID alone became seizure-free (the same proportion as the general population) whereas only 39% of those with abnormal neurology in addition to seizures and ID became seizure free. Individuals with epilepsy and a history of cerebral palsy often have an early onset of seizures that are poorly controlled. Neurosurgery is a final option for those with severe refractory seizures. This included focal resections, temporal lobectomy, multi-lobar resections, hemispherectomy; and functional procedures such as include multiple subpial transection, vagal nerve stimulation and corpus callosotomy. A substantial proportion of

patients with ID improve following surgery and some become totally seizure-free. However, the risk-benefit ratio of surgery must be assessed on an individual basis.

Drug treatments for epilepsy

Goals of pharmacotherapy

The main goals of the drug treatment of epilepsy are:

- ⇒ to achieve control of or, ideally, freedom from seizures
- ⇒ to maintain a quality of life that allows the individual to participate meaningfully in day-to-day activities.

These two goals need to be balanced as a full control of seizures is not always possible.

Good recording of seizures

Pivotal to good pharmacotherapy, it is important to have good recording systems in place:

- ⇒ clear descriptions of the various types of seizures in simple language rather than in medical terms
- ⇒ clear recording of the frequency of each type of seizure type
- ⇒ clear descriptions of how other aspects of the person's activities or behaviours have changed with the introduction of a new drug.

Drug treatment for different types of epilepsy in adults with LD – see attached table

Polypharmacy

The refractory nature of seizures in many people with ID frequently results in polypharmacy of antiepileptic drugs. For many, the introduction of new antiepileptic drugs may result in increased polypharmacy with only marginal impact on seizures. For most people, it is unlikely that significant additional benefit will be achieved with more than two standard antiepileptic drugs.

Therapeutic drug monitoring

Regular blood test monitoring of drug levels of antiepileptic drugs (AEDs) in adults with ID is not recommended as routine, and should be done only if clinically indicated.

Indications for therapeutic drug monitoring of AED blood levels are:

- ⇒ detection of non-adherence to the prescribed antiepileptic drug
- ⇒ suspected toxicity of the antiepileptic drug
- ⇒ adjustment of dose specifically in the case of phenytoin
- ⇒ management of pharmacokinetic interactions

When examining the evidence to support the practice of therapeutic drug monitoring of antiepileptic drugs NICE concluded:

- ⇒ Routine monitoring of AED blood levels does not lead to improved seizure control for people with epilepsy.
- ⇒ There is no good quality evidence that shows routine monitoring of side effects leads to better health outcomes for individuals.
- ⇒ There is no evidence that shows routine monitoring of drug usage leads to better health outcomes for individuals

Type of seizure	First-line drugs	Second-line drugs
PARTIAL SEIZURES		
Simple partial seizures Complex partial seizures Partial seizures evolving to secondarily generalised seizures	Carbamazepine oxcarbazepine sodium valproate lamotrigine topiramate	gabapentin tiagabine levetiracetam pregabalin
GENERALISED SEIZURES		
Absence seizures (petit mal)	sodium valproate lamotrigine	Ethosuximide Clobazam Clonazepam Topiramate
Myoclonic seizures	sodium valproate	lamotrigine clonazepam clobazam levetiracetam topiramate
Tonic seizures	sodium valproate lamotrigine	topiramate clonazepam levetiracetam clobazam
Atonic seizures (drop attacks)		
Tonic-clonic seizures (grand mal)	carbamazepine sodium valproate lamotrigine topiramate	Clobazam Levetiracetam Oxcarbazepine

References:

- ⇒ Betts T (1998). Epilepsy, psychiatry and learning difficulty. London: Martin Dunitz and Parthenon Publishing..
- ⇒ Brodie, M. J., Schachter, S.C., Kwam, P. (2005) Fast Facts: Epilepsy. Third Edition. Health Press Ltd. Oxford.
- ⇒ Branford D, Bhaumik S, Duncan F. Epilepsy in adults with learning disabilities. Seizure. 1998;6: 473–477.
- ⇒ Corbett J. Epilepsy and mental retardation. In: Reynolds ER, Trimble MR editor. Epilepsy and psychiatry. Edinburgh: Churchill

Livingstone; 1981;p. 138–46.

- ⇒ Deb S, Hunter D. Psychopathology of people with mental handicap and epilepsy. I. Maladaptive behaviour. *Br J Psychiatry*. 1991;159:822–826.
- ⇒ Deb S, Hunter D. Psychopathology of people with mental handicap and epilepsy. II. Psychiatric illness. *Br J Psychiatry*. 1991;159:826–830.
- ⇒ Epilepsy Action. Syndromes (Childhood Epilepsies) WWW at Epilepsy Action. <http://www.epilepsy.org.uk/info/syndromes.html>
- ⇒ Forsgren L, Edvinsson S-O, Blomquist HK, Heijbel J, Sidenvall R. Epilepsy in a population of mentally retarded children and adults. *Epilepsy Res*. 1990;6: 234–238.
- ⇒ Goulden J, Shinnar S, Koller H, Katz M, Richardson SA (1991). Epilepsy in children with mental retardation: a cohort study. *Epilepsia* 32, 690-697.
- ⇒ International League Against Epilepsy Commission on Classification and Terminology of the International League Against Epilepsy WWW at International League Against Epilepsy classification. Internet page at: <http://www.epilepsy.org/>
- ⇒ Kirkham F (1995). Epilepsy and mental retardation. In: Hopkins A, Shorvon S, Cascmo G (eds) (1995). *Epilepsy*. London: Chapman & Hall Medical, pp 503-520.
- ⇒ McVicker R, Shanks OEP, McClelland R (1994). Prevalence and associated features of epilepsy in adults with Down's syndrome. *British*

Journal of Psychiatry, 164, 528-532.

- ⇒ National Institute for Health and Clinical Excellence (2004) Clinical guideline No20 and Technology Appraisal 76 www.NICE.org.uk
 - ⇒ Schmidt, S. , Schachter, S.C., eds. (2000) *Epilepsy Problem Solving in Clinical practice*. Martin Dunitz Ltd. London.
 - ⇒ Smith, D.F., Mackenzie, J. M., Appleton, R., Chadwick, D.W. (2006) *Encyclopedia of visual medicine series. An Atlas of Epilepsy*. Parthenon Publishing. Lancashire.
 - ⇒ Steffenburg U, Hagberg G, Kyllerman M. Characteristics of seizures in a population-based series of mentally retarded children with active epilepsy. *Epilepsia*. 1996;39(9):850–856.
 - ⇒ Steffenburg S, Gillberg C, Steffenburg U. Psychiatric disorders in children and adolescents with mental retardation and active epilepsy. *Arch Neurol*. 1996;53:904–912.
 - ⇒ Olsson I, Steffenburg S, Gillberg C. Epilepsy in autism and autistic-like conditions. A population-based study. *Arch Neurol*. 1988;45:666–668.
 - ⇒ McGrother C, Bhaumik S, Thorp C, Hauck A, Branford D, Watson J. Epilepsy in adults with intellectual disabilities: Prevalence, associations and service implications. *Seizure* (2006) 376-386
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Autistic Spectrum Disorders – Approaches to Diagnosis and Treatment

Dr Sab Bhaumik, OBE, FRCPsych (UK)

Dr Satheesh Gangadharan, MD, FRCPsych (UK)

Autism or autistic spectrum disorders (ASD) comprise a spectrum of severe developmental and neuropsychiatric disorders that are usually apparent by

the age of three years. Kanner gave the first detailed description of autism in his paper Autistic disturbance of affective contact in 1943. From her field research, Wing later drew up a triad of behavioural criteria for the diagnosis of autistic disorder:

- ⇒ Qualitative impairment in reciprocal social interaction
- ⇒ Qualitative impairment in verbal and non-verbal communication and in imaginative activity
- ⇒ A markedly restricted repertoire of activities and interests

These impairments are found in people with ASD throughout the range of intelligence and in all the clinical subtypes. Characteristic sensory and motor abnormalities are also commonly described as follows.

Social impairment

- ⇒ Variable in degree and nature
- ⇒ Difficulty with social cues affecting reciprocal social interaction, joint interactive play and joint attention behaviour
- ⇒ Failure to recognise emotional cues, resulting in inappropriate responses to distress in others, reflecting a wider lack of empathy

Language abnormalities

- ⇒ Both verbal and non-verbal spheres of language are affected
- ⇒ Expressive function is more affected than receptive language
- ⇒ Both symbolic and pragmatic language abnormalities occur, including echolalia, abnormal prosody, pronoun reversal and lack of variation in the quality of speech

Limited imagination

- ⇒ Interests and activities are limited to a few circumscribed themes, with a lack of spontaneity, imaginativeness and creativity
- ⇒ Activities are typically repetitive and stereotyped, with interest being

shown in a part of an object rather than in the whole

- ⇒ There may be compulsive routines and unusual attachments, often resulting in a large collection and storage problems
- ⇒ Any unexpected change may result in great distress to the autistic person, who may become very agitated and aggressive

Sensory-motor abnormalities

- ⇒ Abnormal perceptions, especially hearing and vision, may result in stimulus overload
- ⇒ A lack of internal monitoring of time and space may make the person unable to think in a sequential framework
- ⇒ Motor dysfunction (stereotypies) may present as hand-flapping, bouncing up and down and/or gyration, which become marked with the person is excited or distressed

Prevalence:

ASD are considerably more common than was previously believed. Studies have shown that prevalence is between 7 and 17 per 10,000 children of all ages; and between 12 and 20 per 10,000 children of school age.

ASD are also more common in people with learning disability (LD) than in the general population, with a prevalence of 5% in those with mild LD and 15% in those with moderate or severe LD. 75-90% of those with the condition have LD. All studies report an excess of boys with ASD; and most give a male:female ratio between 3:1 and 4:1. Among those with the condition and a severe to profound degree of LD, the male:female ratio approaches 1:1. There is a relatively low prevalence of girls with ASD in the higher intelligence ranges. This suggests a sex-linked genetic mechanism. Autistic traits are recognised more often than a clear-cut diagnosis of ASD. One study showed that 40% of adults with LD have autistic traits.

Aetiology:

The pathogenesis of ASD is not clearly established. The proposed hypotheses

range from psychological to neurobiological theories. The recent evidence favours a neurobiological explanation.

Psychological theories

There has been much debate about whether ASD are primarily an interpersonal impairment or a cognitive defect or a failure in the development of language, communication and social skills.

Theory of mind hypothesis

Theory of mind refers to the ability of normal children to attribute mental states such as beliefs, desires and intentions to themselves and other people as a way of making sense of and predicting behaviour. It has been suggested that the impairments seen in autistic children arise because they lack a theory of mind.

Central coherence theory

Recent work has suggested that there may be more fundamental deficits in ASD such as an inability to visualise relationships between objects or to extract meaning from piecemeal information.

Neurobiological theories

Computer-assisted tomography (CAT) and magnetic resonance imaging (MRI) studies

A variety of structural abnormalities have been reported on CAT scans of individuals with ASD:

- ⇒ reversed cerebral asymmetries
- ⇒ enlargement of the lateral and third ventricles
- ⇒ decreased radiodensity of the caudate nuclei.

However, there have been problems in reproducing these results and in finding a consistent pattern. A recent MRI study found developmental

cortical malformations and delayed maturation of the frontal lobes in people with ASD. It has been suggested that abnormal neuronal migration occurring perhaps in the first six months of gestation accounts for the cerebral cortical defects and hypoplasia. The underlying cause of the failed cell migration remains unknown, but viral and immunological factors need to be considered.

Neurochemical findings

Abnormalities have been found in monoamine chemistry, peptides, amino acids and neuroendocrine functioning:

- ⇒ Raised platelet serotonin levels are consistently raised in 30% of autistic people. Similar levels are found in their first-degree relatives.
- ⇒ Levels of 5-HT in autistic people with affected siblings are significantly higher than in autistic people without affected siblings; and the levels in both groups are higher than in controls.
- ⇒ The dopamine system may also be abnormal, with low levels of dopa-hydroxylase found in probands and first-degree relatives compared with controls.
- ⇒ Raised urinary and cerebrospinal fluid levels of homovanillic acid and elevated plasma noradrenaline have been reported in people with ASD.
- ⇒ Raised whole blood serotonin levels have been found in specific sub-groups of people with ASD including those with fragile X syndrome.
- ⇒ Growing evidence of abnormalities of the hypothalamic–pituitary axis suggests that abnormalities of the monoamine oxidase and indoleamine systems may be involved in ASD.

Disturbance in any of these systems could greatly interfere with normal cognitive processes. Perceptual pathways are all mediated by neurotransmitters and homeostatic neuroregulators. However, the development of specific defects that explain the development of Wing's

triad of impairments remains unexplained.

Genetic influences

There is now growing evidence that genetic factors play an important role in ASD:

- ⇒ The frequency of ASD in siblings of autistic children is 50 times higher than in the general population. About 15% of siblings of people with ASD have lesser developmental disorders of speech, language or reading skills. It is suggested that it is these psychological characteristics rather than a global cognitive defect that are inherited.
- ⇒ Same-sex twin studies in ASD have shown that monozygotic concordance rates (36-89%) are much higher than dizygotic concordance rates (0%). Most of the non-autistic co-twins had some form of cognitive impairment, usually a speech or language impairment. The monozygotic concordance rates for these lesser impairments (82%) were higher than dizygotic concordance rates (10%).
- ⇒ Parents of autistic individuals have higher ratings than parents of controls on a standardised personality interview for the characteristics termed aloof, tactless, undemonstrative and unresponsive.

Evidence from the family and twin studies taken together suggests that the ASD phenotype extends beyond autism as it is traditionally diagnosed. The condition is heterogenous and may involve several genes.

Associated medical conditions

One in four children with ASD has an associated medical condition. It is possible that these conditions may have a common underlying genetic aetiology, which causes ASD through a final common pathway.

Key points specific to learning disability

There appears to be no cure for ASD. The clinical focus is on the management of maladaptive behaviours and functioning rather than on the primary condition. Management approaches include psychological education, family support, behaviour therapy, environmental manipulation and special education. In addition to these therapeutic approaches, drug treatment of maladaptive behaviours may be necessary in certain circumstances.

Stereotyped behaviour (rituals)

Stereotypic and ritualistic activities interfere with learning and are thus disruptive. They include the development of fixed routines. When these are interrupted they may cause great distress, resulting in disturbed behaviour. The rituals in ASD are not accompanied by obsessional thoughts and may be comforting (unlike the compulsions seen in obsessive compulsive disorder). The management of the rituals in ASD differs from the conventional treatment of those in obsessive compulsive disorder. However, serotonin selective re-uptake inhibitors (SSRIs) may be useful in treating repetitive behaviours.

Autistic spectrum disorders and aggressive behaviour

Aggression occurs frequently. It may represent a means of communication, particularly in response to a perceived threat or in those with limited verbal abilities: to gain attention, express distress or relieve boredom. Any strategy should be based on functional analysis of the behaviour, with contingency management being the primary objective of the intervention. Drugs may be used as a last resort to control aggressive behaviour.

Autistic spectrum disorders and self-injurious behaviour

The neurotransmitter hypotheses in the biomedical model of self-injurious behaviour may explain the underlying aetiology of self-injurious behaviour in people with ASD. However, before concentrating on biological models, it is useful to identify antecedents of self-injurious behaviour (change in routine, social cues or the environment); and to note whether the behaviour

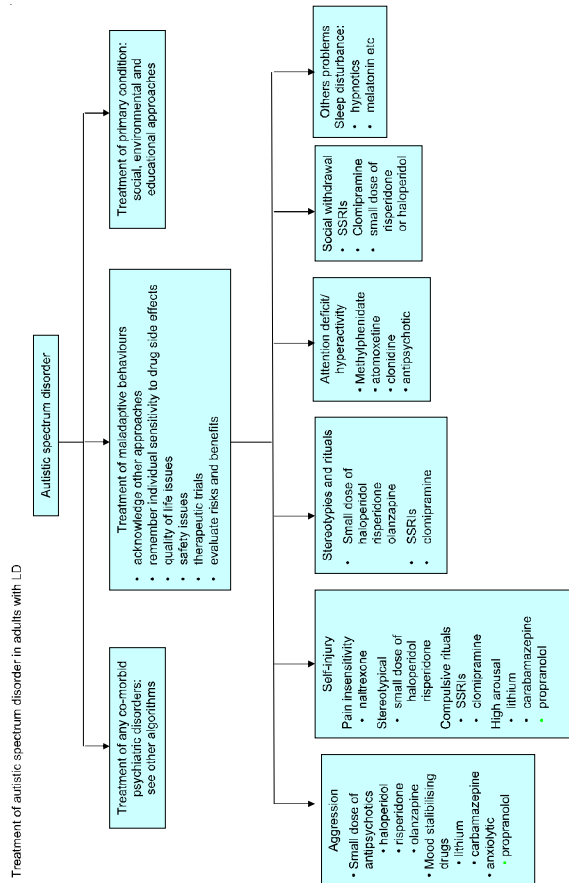
is being used as a form of communication.

Autistic spectrum disorders and epilepsy

There is an increased incidence of epilepsy and abnormal electroencephalogram (EEG) findings in people with ASD. There is an initial increase in the incidence of epilepsy during early childhood and a later increase during adolescence. The incidence rises to 25-40% by early adulthood. Generalised seizures are the most common form of epilepsy. Complex partial seizures may be more frequent than previously estimated. The onset of seizures in adolescence is sometimes, but not usually, associated with marked behaviour changes and aggression. EEG abnormalities have been estimated to occur in 10-83% of people with ASD. Around 58% show abnormalities on repeat EEGs. The most common findings are diffuse or focal spikes; slow waves; and paroxysmal spike and wave activity with a mixed discharge. Most abnormalities are bilateral. Unilateral findings tend not to be clearly localised.

Autistic spectrum disorders and attention deficit hyperactivity disorder

A large number of people with ASD show significant levels of inattention, impulsivity and hyperactivity. These behaviours are typically associated with attention deficit hyperactivity disorder. Stimulants are beneficial in some people. However, adverse effects such as social withdrawal, irritability and loss of appetite may be marked at higher doses.



Key references

⇒ Baron-Cohen S (1985). Mind Blindness. An essay on Autism and Theory of Mind. Cambridge MA: MIT Press.

- ⇒ Bhaumik S, Branford D, McGrother C, Thorp C (1997). Autistic traits in adults with learning disabilities. *British Journal of Psychiatry*, 170, 502-506.
- ⇒ Jesner OS, Aref-Adib M, Coren E (2007) Risperidone for autism spectrum disorder (review). The Cochrane Collaboration. The Cochrane Library 2007 Issue1. J Wiley and Sons. www.thecochranelibrary.com
- ⇒ Leo Kanner (1943). Autistic disturbances of affective contact. *Nervous Child*, 2, 217-250.
- ⇒ Frith U 1989. *Autism: explaining the enigma*. Oxford: Blackwell.
- ⇒ National Autistic Society (2003) *National Autism Plan for Children*. London: National Autistic Society
- ⇒ Nordin V, Gillbert G (1996). Autistic spectrum disorders in children with physical or mental disability or both. Part 1: clinical and epidemiological aspects. *Developmental Medicine and Child Neurology*, 38, 297-313.
- ⇒ Scottish Intercollegiate Guideline Network 98 (July 2007) Assessment, diagnosis and clinical interventions for children and young people with autism spectrum disorders. www.sign.ac.uk
- ⇒ Steffenburg S, Gillberg C (1986). Autism and autistic-like conditions in Swedish rural and urban areas: a population study. *British Journal of Psychiatry*, 149, 81-87.
- ⇒ Wing L (1999) *The Autistic Spectrum: A Guide for Parents and Professionals*. London: Constable.
- ⇒ Wing L, Gould J (1979). Severe impairments of social interaction and associated abnormalities in children: epidemiology and classification. *Journal of Autism and Developmental Disorders*, 9, 11-19.

What is Learning Disability

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Academic under-achievement and poor scholastic performance are the common reasons for seeking professional help in child psychiatry settings. A number of cases are either considered as mental retardation or behavioural abnormalities. The most common cause of poor academic performance in children with normal intelligence is a neuro-biological dysfunction called Learning Disorder. It is a disorder of development in the nervous system of children resulting in inadequate acquisition of basic skills of learning like reading, writing and mathematics. In spite of having normal intelligence or even above average IQ, the child affected with learning disorder is destined to fare poorly in all academic activities and may have above average performance in other areas of functioning. The real issue is masked by unnecessary blaming of each other by parents, teachers and the child himself. Seeking psychiatric help is the last of the priorities.

The latest version of the DSM IV (DSM IV TR) includes four diagnostic categories of learning disorders: reading disorder, mathematics disorder, disorder of written expression and learning disorder not otherwise specified. Children with learning disorder, such as mathematics disorder, for example, can be identified in two different ways, children have difficulty learning and remembering numerals, can not remember basic facts about numbers, and are slow and inaccurate in computation. Poor achievement in four groups of skills has been identified in mathematics disorder: Linguistic skills, perceptual skills mathematical skills and attention skills. Several investigations have demonstrated that environmental influences during sensitive time windows of early postnatal life interfere with development of emotional and cognitive functions. These behaviour changes are most likely caused by synaptic changes within functional pathways, which are induced by early postnatal experience.

Considering the fact that forty seven percent of the country's population is below nineteen, twenty four percent below ten years and twenty three percent between ten and nineteen years. Ten to fifteen percent of them are having a mental health disorder; the mental health and social implication of these problems and the need for services are evident. It is unfortunate that mental health services for children and adolescents are highly deficient in our country.

It has been estimated that five to seven percent of school going children are affected by learning disorders. In some studies it is up to ten percent. This represents at least two to three children in every class/division as affected.

Treatable conditions like, Attention Deficit Hyperactive disorder and childhood depression may co-exist with many cases of learning disorder. If not identified early and effectively managed, consequences like school refusal and dropouts, anxiety disorders, depressive disorders, delinquent behaviour and substance abuse are likely to result. Proper diagnosis and timely intervention is the only answer to prevent this disaster.

Reading disorder is defined as reading achievement below the expected level for child's age, education and intelligence with the impairment interfering significantly with academic success or the daily activities that involve reading. Reading disorder is characterized by an impaired ability to recognize words, slow and inaccurate reading, and poor comprehension. Children with ADHD are at high risk for reading disorder. Different labels were used in the past to describe reading disorder. Dyslexia was used extensively for many years to describe a reading disability syndrome, which includes speech and language deficits and right-left confusion. Current neurobiological understanding states that there is a deficiency in processing sounds of spoken language. Children who struggle with reading have a deficit in phonological processing skills. These children cannot identify effectively the parts of words that denote specific sounds and this leads to difficulty in recognizing and sounding out words. They are slower than average in naming letters and numbers. The reading disorder essentially a language deficit, the anatomical site of the dysfunction is probably the left brain.

Several recent studies suggested that the ability to decode sounds and sound out words are linked to chromosome 6 and the ability to identify single words has been linked to chromosome 15. Impairment in reading and spelling has now been linked to susceptibility loci on, multiple chromosomes, including chromosomes, 1, 2, 3,6,15 and 18.

The reading disorder is usually identified at the age of 7 years. In lower classes, children can sometimes compensate by the use of memory and inference, especially in highly intelligent cases. In such cases the disorder may be masked till the age of 9 years or later. The usual errors in reading are omissions, additions and distortions of words. They have difficulty in distinguishing between printed letter characters and sizes. Other language difficulties are impaired sound discrimination and difficulty in sequencing words properly.

Disorder of written expression is characterized by writing skills that are significantly below the expected level for child's age and intellectual capacity. This leads to impairment in child's scholastic performance and writing in day-to-day activities.

The disorder of written expression includes poor spelling, errors in grammar and punctuation and poor handwriting. Spelling mistakes are the most common difficulty for a child with writing disorder. The phonetic errors are the erroneous spelling that sounds like the correct spelling. Causes of writing disorders are believed to be similar to those of reading disorder.

In higher classes these children have difficulties in spoken and written sentences those becomes more primitive, odd and inferior to what is expected of students at their level. The word choices are inappropriate and a wrong, disorganized paragraph with poor sequence and spelling correctly becomes increasingly difficult. Accompanying features are school refusal, truancy, avoidance of homework assignments, attention deficit and conduct disorders.

Work-based Learning and Vocational Rehabilitation in Learning Disability

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The importance of vocational rehabilitation in the management of people with learning disabilities cannot be overemphasized. Vocational rehabilitation may be defined as a process to overcome the barriers an individual faces as a result of injury, illness or impairment when accessing, remaining in or returning to purposeful activity, work and employment (Barnes et al 2007, College of Occupational Therapists 2008). In countries like the UK with a long history of institutional care for people with learning disability, long stay hospitals often offered work-based programmes within their grounds; however such schemes rarely replicated the conditions of outside workplaces (Webster et al 2001). Features of the normal workplace such as the building of relationships with supervisors and workers and adhering to working hours were impossible in those settings. In addition barriers like staff shortages would result in sessions being missed or part attended affecting the participant's concentration and motivation. All these highlighted the need for a more community-based approach.

Due to the personal and practical barriers that many people with learning disabilities have to engagement in meaningful productive occupation, it is often the role of the occupational therapist to help these individuals develop the skills needed to develop a constructive role (Dunn and Seymour 2008). In addition to the work-based skills and educational benefits of participating in vocational rehabilitation, there are many related aspects that will benefit the participant. Structure to the day allows a better understanding of time management, role identity allows the development of self identity while shared experiences and contact with people outside of the normal daily routine offer the opportunity to develop social skills (Davis and Rinaldi 2004).

Work-based learning is defined as planned activity that uses the context of

work to develop knowledge, skills and understanding useful in work, including learning through the experience of work, learning about work and working practices, and learning the skills for work (Department for Children, Schools and Families 2008). Hanney (2005) draws a distinction between a work placement and WBL. He defines the former as an experience of work for a short duration whereas WBL is a structured learning experience leading to accreditation.

The authors have described in detail the setting up of a vocational rehabilitation programme based on work based learning for people with learning disabilities (Smith et al 2010, in press). A component of the programme discussed in that paper was the opportunity to be involved in a pilot course set up between the workplace and a further education (FE) college to accredit the learning. This process had been initiated by the workplace as part of its development plan and was reviewed to meet the needs of the patient group by the hospital team. The programme described in the Smith et al paper (2010) was developed for use within a forensic service for people with learning disabilities. Baseline service evaluations showed that the median duration of stay for discharged patients within the service was 1065 days. 80 to 90% were discharged to lower levels of security with about 30% directly into community (Alexander et al 2010). In this context, it was felt that well-designed work-based learning programmes would further enhance the transition into the community.

The programme involved three partners - the hospital, a workplace in the community and a local FE (Further Education) college. From the hospital end, it was delivered by a multi-disciplinary team with the direct involvement of an occupational therapy student, a teacher and members of the nursing team. The aims of the work-based programme are listed below:

1. to offer a graded progression into working in the community
2. to offer an accredited course that focused on the acquisition of work-related skills and opportunities to apply and develop literacy and numeracy skills
3. to develop appropriate social interaction within a work-based setting

4. to increase self-esteem and confidence by promoting personal responsibility
5. to increase awareness of health and safety within the workplace

The selected workplace was provided by Aid to Hospitals Worldwide (A2HW). A2HW is a charity specialising in recycling used and redundant hospital equipment that can no longer be used by the NHS (A2HW, 2009). Volunteer's clean, refurbish and pack equipment ready for shipping to hospitals, laboratories and schools within a number of developing countries. The workplace was used as an environment for teaching and learning and the programme was designed to allow patients to work at different levels. In addition to the risk assessments available within the workplace, patient-specific risk assessments were carried out by the hospital staff.

Initially four patients volunteered to be part of the vocational rehabilitation work-based learning programme. Patients were selected based on priorities within their care pathway and in line with relevant risk assessments. They worked one day each week from 09.30 - 15.30. Patients and staff worked alongside each other on a one to one basis under the direction of the operations manager at A2HW. It was this level of support and guidance that provided the opportunity to structure the programme and develop an integrated approach to learning. Individual journals were kept to record the day's events and to reflect on achievements. Due to the success of a trial period with one group of patients, the programme was expanded to two days a week and included patients from another rehabilitation unit.

The programme's intention was to extend the effectiveness of the work placement beyond the experience stage and consider opportunities to embed literacy and mathematical skills within applied and relevant contexts. The programme provided a variety of tasks within the packing area and the warehouse environment. They included sorting, counting, packing, labelling, recording weight and volume and cleaning and checking equipment. Tasks were graded by the occupational therapy student to a level which allowed the patient to demonstrate his or her current skills as well as develop them further. A journal was kept by each patient with an emphasis on recording the activities of the day, worksheets to record the mathematical aspects

and supporting literature about the world-wide destinations of the equipment. The combined skills and expertise of an occupational therapy student and a teacher were well matched to shape the direction of the programme during the initial period of implementation.

During the early months of the placement, discussions were held with personnel from the college regarding the direction and content of the accredited course. For the purposes of the pilot, the selected course was the Entry Level Certificate in Skills for Working Life (SfWL) awarded by City & Guilds/ National Proficiency Test Council (NPTC) (NPTC 2007). All the financial and organisational elements were set up between the college and A2HW. In this respect, along with other volunteers participating in the pilot scheme, the patients were students of the college participating in a programme delivered by named personnel at A2HW. The following statements describe the qualification and are in line with the aims of the work-based programme that was discussed with the patients:

- ⇒ Provide motivation, recognition of progress and achievement through a programme of structured assessment;
- ⇒ Provide progression opportunities into further learning, training and preparation for employment

The students were assessed across five units. Units were selected from the three areas of preparing for work, life skills and a vocational component. At the end of the pilot period the course will be evaluated led by staff from the college.

The main outcomes of the programme are summarised in Table one below and represent the views of the staff facilitating the programme, the patients, and senior personnel from the work placement.

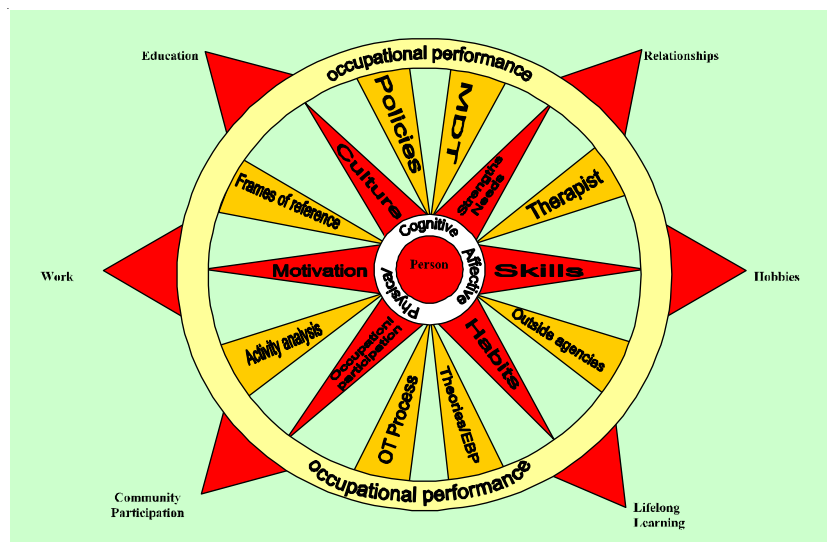
Table one, Summary of programme outcomes

Social skills	Work skills	Literacy and numeracy skills
Increased group interaction skills	Increase in confidence in ability to perform a task	Increased ability to record information
Increased ability to socialise with other volunteers	Higher levels of problem solving	Increase in numeracy skills particularly in number and measurement
Increase ability to hold appropriate conversations with others	Increased organisational skills	Increase in literacy skills as demonstrated through recording information for dispatch
Increase in ability to communicate their ideas, opinions and wishes	Improved concentration levels	Completion of journals
Developing reflective skills	Greater awareness of the work schedule	Increased confidence to undertake literacy and numeracy related tasks

As observed by a range of staff, these areas of skill improvement resulted in an increase in patients' self-esteem, both at the work placement and when communicating with peers and staff within the living environment.

Based on this project, the first author developed the Model of Integrated Vocational Rehabilitation, a person centred model which draws on principles from the Model of Human Occupation (Keilhofner 2008), and The Canadian Model of Occupational Performance (Ross 2007). The model places the client firmly at the centre and shows the workplace collaboration taking place between the client, the therapist, the multi-disciplinary team and outside

agencies; the progression outwards then demonstrates the continuing client journey. Each of us strives, throughout our life, to achieve a balance of meaningful and purposeful work, rest, self care and leisure (Ross 2007). Rest, self care and leisure are not directly addressed by the model but are perceived to be influenced and are reflected in the client journey [outwards].



The model was developed primarily for use with people with mild learning disabilities and or a co-morbid mental illness within a work-based vocational rehabilitation environment, although it is envisaged it can be used with a much wider client group and within other areas of practice. Although the model has been used successfully in relation to this program it will need to be used by others to fully evaluate its relevance and usability. With this in mind further expansion of the components of the model have been compiled and are outlined below.

References

- ⇒ A2HW (2009) Aid to Hospitals Worldwide. [Online] Available from: <http://www.a2hw.org.uk> [Accessed 11 June, 2009]
- ⇒ Alexander RT, Green FN, O' Mahony B, Gunaratna I, Gangadharan

- SK & Hoare S (2010) Personality disorders in intellectual disability: a comparison of clinical, forensic and outcome variables and implications for service provision. *Journal of Intellectual Disability Research (in press)*.
- ⇒ Barnes T, Holmes J, The National Executive Committee of the College of Occupational Therapists Specialist Section- Work (2007) Occupational Therapy in Vocational Rehabilitation, A Brief Guide to Current Practice in the UK. London: College of Occupational Therapists
- ⇒ Barton D, Tusting K (2003) Models of adult learning: a literature review of models applicable to Skills for Life. London: NRDC
- ⇒ College of Occupational Therapists (2008) *The College of Occupational Therapists' Vocational Rehabilitation Strategy*. London: COT
- ⇒ Davis M, Rinaldi M (2004) Using Evidence-Based Approach to Enable People with Mental Health Problems To Gain and Retain Employment, Education and Vocational work. *British Journal of Occupational Therapy* **67** (7) 319-22
- ⇒ Department for Children, Schools and Families (2008) The Work-related Learning Guide – First edition, A guidance document for Employers, Schools, Colleges, Students and Their Parents and Carers. Nottingham.
- ⇒ Duncan E A S (2006) Theoretical Foundations for Occupational Therapy, Internal Influences. In Duncan, E. A. S (Ed) Foundations for Practice in Occupational Therapy, 4th Ed. Edinburgh: Churchill Livingstone
- ⇒ Dunn C, Seymour A (2008) Forensic Psychiatry and Vocational Rehabilitation: Where are we at? *British Journal of Occupational Therapy*, **71** (10) 448-50
- ⇒ Hanney R (2005) Competence or Capability: Work-based Learning & Problem-based Learning. *Journal of Media Practice* **6** (2)
- ⇒ Keilhofner G A (2008) Model of Human Occupation, Theory and Application 4th Ed. Philadelphia: Lippincott Williams and Wilkins
- ⇒ National Proficiency Test Council (2007) Entry Level Certificates in Skills for Working Life. [Online] Available from: <http://www.nptc.org.uk/qualifications/default.asp?area=135> [Accessed 9 March, 2009]
- ⇒ Ross J (2007) Occupational Therapy and Vocational Rehabilitation.

Understanding The Problem Child - In Clinic, School And Community

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Most of the professional experience regarding "problem children" is from the clinic population. They constitute children who are referred by doctors, teachers, and counsellors or brought by the parents. (Very occasionally one may come across the kid who initiates and volunteers a consultation. The more common and familiar scenario is the drama enacted by the parents to bring the unwilling child to consultation by surreptitious methods.) We have some evidence that the pattern and nature of problems vary according to the setting and only a minuscule of children with "problems" reach the professional care. The professional's attitude might also get influenced by the kind of training he has received and the profile of clients to whom he is exposed regularly. These possibilities should be kept in mind as real or potential biases in interpreting research findings in child psychiatry. So the diagnoses and the different variables determining problem behaviour are likely to be different depending on whether the setting is a clinic, school or community. (We have initiated some research into these differences and have come out with some interesting findings on the epidemiology and comorbidity of ADHD presenting in two settings. The findings were presented in the Kerala State Annual Conference of Indian Psychiatric Society 2009. A more detailed study comparing these variables between clinic sample and community sample is underway.) The following text is mainly based on the clinic experience of problem children. As we gather more data from other settings which we hope to complete in the near future we may be able to present a better picture.

Children who attend the child and adolescent clinic can be placed in four

major categories depending on their presenting problem.

1. Medically Unexplained Physical Symptoms (MUPS)
2. Poor Scholastic Performance(PSP)
3. Disorders of Conduct (Disruptive Behaviours)
4. Enuresis, sleep disorders, tics, stuttering etc

Most of the case referred by paediatricians belong to the first or the fourth category, where as children with poor scholastic performance are referred by teachers, counsellors or directly brought by parents. The third group is mainly directed by psychologists and counsellors. Experience over the last 12 years has shown an interesting shift in the pattern of clinic attendees. Initially, the majority of cases belonged to the MUPS. Over the years, the numbers of children brought for evaluation of PSP and conduct problems are increasing and now form the majority of cases. Let me focus briefly on some of issues in the assessment and management of these conditions.

MEDICALLY UNEXPLAINED PHYSICAL SYMPTOMS

Functional Somatic Symptoms (FuSS) is a challenge for clinicians, especially in a paediatric setting. Typical cases include children who presents with abdominal pain, headache, vomiting or spells of unresponsiveness for which no medical causes are discovered even after repeated examinations and investigations. The parents and relatives are anxious and frustrated because of futile repeated hospital visits and absenteeism from school. The paediatrician is anxious whether she is missing a real diagnosis. She may believe that the child is manipulating and malingering which evokes counter-transferential issues. [Non psychiatrist physicians often find it very difficult to differentiate among hysterical (conversion-dissociation), factitious and malingering phenomena]. When it comes to the matter of referring, she is afraid whether she will offend the parent or the child if she mentions the term psychiatry or psychiatrist! So the referral is usually delayed and often happens in a way unpleasant to all the parties concerned including the psychiatrist! Hence the psychiatrist is tremendously at a disadvantage. He has to start with a highly undesirable, spoiled doctor-child-parent relationship characterized by mistrust and ambivalence.

PEDIARICIAN- PSYCHIATRIST- PARENT- CHILD AXIS

The ideal way to start mental health intervention in MUPS is a personal discussion of the problem between the paediatrician and the psychiatrist. Both parents may also be involved. It has to be very clearly stated to the parents that the child's current problems are not/ unlikely due to a medical problem, or if a medical problem exists, the symptoms are disproportionately severe to be explained by it. Any investigation pending should be completed as soon as possible and any reasonable apprehensions of the anxious parents should be respected (eg; for getting a second opinion). Too much of time should not be wasted before psychiatric interventions are started. The more time the FuSS lasts, the more established they become. And hence, they become more resistant to interventions.

Parents should not get the message that, the doctors are just dismissive and consider the child's illness as unreal, imaginary, feigned or manipulative. Any behavior therapy (which is the primary intervention in most cases) is destined to fail, if parents do not wholeheartedly cooperate with the treating team. In fact, parents are co therapists in most of the situations. The clinicians should jointly agree and state to the parents and the child that that the illness is real (except in the very rare instances of factitious and malingering).

POSITIVE EXPLANATORY MODEL

After taking the detailed history, parents should be given a positive explanatory model for the illness, rather than negative statements like "there is nothing really wrong with the child." Providing a formulation integrating the child's temperament, the stressful events experienced (school related and home environment related), the temporal correlation between the onset of symptoms and the stressors, the purpose served (consciously or unconsciously) by the symptoms and the way in which they are reinforced would give sufficient confidence for most parents to get involved with the interventions in a positive way. Just telling them that, there is nothing physical and everything is due to emotional or psychological factors may not help. For the more educated and the psychologically sophisticated parents an explanatory models based on the Autonomic Nervous System function may be provided.

The explanatory model given to the child should consider his level of intelligence and the stage of cognitive development. For example, a child in the cognitive developmental stage of pre-operational stage may not be able to understand explanations given in abstract terms. At any age child should get the message that she also shares the responsibility to get well. Shifting the agenda of discussion from illness behavior/ experience to wellness and creative activities in which the child has aptitude and interest itself may be therapeutic.

BEHAVIORAL MODEL

Most of the new generation psychiatrists are unfamiliar and uncomfortable with psychodynamic models of explanation and interventions. Such approaches may not find ready acceptance with parents or paediatricians also. Take for example the case of a 11 year old girl child getting recurrent episodes of "unresponsiveness, while maintaining inner consciousness" which occurs exclusively in class room. The explanations like the mathematics teacher unconsciously resemble her father and his presence rekindles forbidden incestual fantasies resulting from unresolved oedipal stages of her psychosexual development and the conversion dissociation symptoms symbolically represent an orgasmic experience and the punishment for it, thereby serving the purpose of primary gain, may not get admiration from your paediatric colleagues or acceptance from parents.

A practical and simple way to understand and intervene in most cases of MUPS in children is to subscribe to the behavioral model.

The well known A' B' C (Antecedent ' Behavior' Consequence) analysis would be applicable in majority of situations. Factors like temperament, stressful events in the remote and immediate past and even genetic diathesis could be construed as antecedent factors (A). The symptom with which the child presents may be considered as a maladaptive behavior (B). What follows such a behavior (symptom) is recorded as consequences (C). According to behavioral principles, by modifying the consequences, one can increase, decrease or eliminate the behavior- here the physical symptom being the undesirable behavior. The principles of reward and punishment are well known. People often confuse between negative reinforcement and punishment. Negative reinforcement is a strategy to increase the frequency of a particular behavior by withholding certain (usually aversive)

consequences, where as punishment is the administration of aversive stimuli to decrease or eliminate a particular behavior. Employing punishment as a strategy in behavior therapy is not ideal because of its ineffectiveness and unethical nature.

A behavioral strategy which has been found to be very effective in our settings is Negative Punishment. Withholding pleasurable or enjoyable things for a period of time can be employed as strategy to eliminate a particular undesirable behavior (a medically unexplained symptom). For example, a child with repeated episodes of pseudoseizures can be told that, she should not watch TV till she recovers completely or a child with psychogenic vomiting is advised to avoid being handled by the mother and restricting some food items liked by the child till she completely recovers. By this strategy, the clinician places a part of the onus of recovery on the child and parents. They should very faithfully agree to these restrictions, which serve as a strong motivator for the child to improve. The same rewards which are withheld, can be used as rewards, once the child improves and resumes her normal activities. It is interesting to note that this particular strategy based on sound and ethical behavior principles was very ingeniously used by traditional systems of medicine even to treat physical conditions (eg; ayurvedic concept of observing certain pathyams in the form of food restrictions and life style changes)

SOME CAVEATS

When subscribing to the behavioral models, which are criticized to be too mechanical, one should not ignore the possibility of overlooking hidden problems. Childhood emotional disorders - anxiety, obsessions and depression - can present with MUPS. Family history of mood disorders should be enquired into very sensitively in every case. Childhood MUPS when followed up sufficiently long into adolescence and adulthood is very likely to evolve as mood disorders.

Searching for stressors in children presenting with MUPS is a very sensitive issue and a real challenge. It can be as difficult as searching for a needle in a hay stack or as confusing as identifying a signal from a background of all noises. Interpretation biases almost always occur. It has been an interesting observation that many children presenting with MUPS were detected to have Specific Learning Disorders (Dyslexia) though none of the parents or

children reported any particular stressors related to school. Childhood physical, sexual and emotional abuse also remains as a hidden problem in MUPS, unless a specific sensitive enquiry is made into these areas.

DO WE NEED TO USE MEDICATIONS?

Pharmacotherapy by psychiatrists is generally considered as a sin, especially in child psychiatry settings. Pharmacologically sound and neurobiologically informed use of medications does really help, at least in a proportion of cases. Using medications should be a part of the treatment package offered to the child. An explanatory model for the use of medications (why and how) should be provided to the child and parents. Medications also can be very effective vehicles of suggestion in children if wisely used. Clinicians should familiarize themselves with use of Mood Stabilizers (Carbamazepine), Anxiolytics (Clonazepam) and SSRIs (Fluoxetine), Atomoxetine, Clonidine, Methyl phenidate etc. in children and should not feel apologetic in using these agents singularly or in combination appropriately as the situation demands. Pharmacotherapy might lift the biochemical barrier in many of these conditions and may render non-pharmacological interventions more effective.

POOR SCHOLASTIC PERFORMANCE

One may wonder why a child who is not scoring good marks/grades should be medically evaluated. There are criticisms that pedagogical / psychological / environmental problems are being medicalized. The reply to these criticisms is stating the simple fact that learning is a function of the brain and it happens in the substrate of the central nervous system. Any dysfunction occurring at any levels in CNS can affect learning. Hence, for any disorders involving learning, disorders in the development and functioning of the nervous system should be sought for, before exploring the environmental (school/family) related issues. Just like if your computer is not working properly, the engineer looks at the power supply, hardware and programs for locating the problem and not just the room or the table on which it is placed!

Unfortunately, parents, teachers and lay public believe that if a child with normal intelligence is not learning properly, the problems are in the environment. Hence parents may blame teachers, and in turn, teachers

may blame the parents. They make hypothesis suiting their beliefs as to what causes the problem. They start experimenting, by changing the school, changing the syllabus, and changing the medium of instructions, without ever bothering to undergo an objective assessment.

A MODEL TO ASSESS POOR SCHOLASTIC PERFORMANCE

A model developed by adapting the one proposed by Dr Philip John (Handbook on Poor Scholastic Performance CBSE 2000) is being successfully implemented in the Child and Adolescent Clinic attached to Institute of Child Health, Medical College Kottayam.

- ⇒ Sensory Defects (visual / hearing impairment)
- ⇒ Medical / Neurological disorders
- ⇒ Intellectual impairment
- ⇒ Pervasive Developmental Disorders (Autistic Spectrum disorders)
- ⇒ Attention Deficit Hyperactivity Disorders (ADHD)
- ⇒ Specific Developmental Disorders (SLD, Speech Language Disorders, DCD)
- ⇒ Emotional Disorders (Depression, OCD, Anxiety Disorders)
- ⇒ Motivational factors
- ⇒ Environmental (School/ family) related
- ⇒ Poor study techniques

Even though, a hierarchical approach is proposed, the categories are not exclusive. One may detect problems at several levels in the same child. For example, hearing defect, borderline intelligence and anxiety may coexist in the same child. Another child may have ADHD, SLD, DCD and OCD. Co morbidity is a rule rather than exception in many of these children. Medical professionals who are trained to make a single diagnosis are likely to experience a cognitive dissonance when they have to entertain multiple diagnoses to explain a common problem. A teacher or a lay person may become uncomfortable when he finds that 'a child who is not making an

effort to learn in spite of good intelligence' is given a basketful of diagnoses! A lot of psycho education and separate sessions with parents are needed before the final diagnostic formulation is offered.

ASSESSMENT and MANAGEMENT

The assessment and management of PSP essentially is a multidisciplinary task. Since the vast majority of cases of PSP being medical, neurological, developmental, cognitive and emotional in nature, a medically trained specialist is the ideal team leader. In our settings a psychiatrist with training, experience and interest in child psychiatry is the team leader. Paediatrician, PG trainees in Psychiatry and Paediatrics, Psychiatric Social Worker, and Clinical Psychologist are the team members. Neurologist, Speech Pathologist, and specialists in Remedial Education are also consulted for assessment in individual cases.

Sensory defects, especially minor visual and auditory impairments, may go unnoticed, unless specifically inquired for. Eyes and ears (being the most important windows of the CNS for academic learning) should be functioning promptly for effective learning to occur. A boy who is seated in the back row and having myopia may not realize that his vision is poor and may struggle at reading from the blackboard. If he is timid and shy he may fail to report their difficulty to the teacher. As he does not have a problem for near vision, the parents also may not appreciate this defect. A simple correction of the refractory error may give wonderful results as far as his academic performance is concerned. Likewise, hearing impairments are often a hidden problem. An audiometric examination is often needed to settle the issue.

Medical conditions like endocrine disorders (hypothyroidism, pituitary, parathyroid disorders) nutritional deficiencies and neurological conditions (seizures, degenerative disorders, metabolic disorders) also should be carefully excluded. Correcting conditions like hypothyroidism can give excellent results.

Many parents, teachers and even teachers have unrealistic beliefs about IQ (Intelligence Quotient) values. Many a time children are brought with a request just for IQ assessment. An IQ assessment is of not much value as an isolated measure. On the other hand, when done as a part of

comprehensive assessment, it is a very important parameter. For example, a child with borderline intelligence may not be identified as such by parents or teachers. The usual history is that he has been scoring good marks in kindergarten and first and second standards, but is slowly declining in performance since then. Cases of borderline intelligence may come to light only when the child advances to higher classes where he finds it difficult to cope with increasing demands of the curriculum. Vineland Social Maturity Scale (a scale to assess developmental stage), Binet Kamat Test and Malins Intelligence Scale for Indian Children are some of the scales used to assess intelligence in our clinic. These scales are usually administered by clinical psychologist. A lot of parental education and discretion and by the clinician is needed in the interpretation of the IQ values.

Attention Deficit Hyperactivity Disorder is one common condition predominantly affecting boys, which go unrecognized. Once detected and intervened sufficiently early, this is one condition which can be corrected by a combination of pharmacological as well as behavioural management. Unfortunately, very often, this condition is mistaken as normal mischief or attributed to faulty parenting and the chance to intervene early is lost. ADHD becomes very difficult to intervene as the child grows into teen ages. Impaired ability to sustain attention, hyperactivity and distractibility are the core features of this disorder. Recent evidence strongly indicate neurobiological dysfunctions involving nor-epinephrine and dopamine as the cause for ADHD and pharmacological interventions are based on this. Pharmacotherapy might lift the biochemical barrier in ADHD and may render non-pharmacological interventions more effective.

Among the Specific Developmental Disorders, Specific Learning Disorders (SLD or popularly known as Dyslexia) form an important, but under recognized cause for PSP. A child with good intelligence, but poor academic performance should always be assessed for evidence of SLD. The usual quip by parents and teachers about these children is "he is good in every thing except in studies!" The problem lies in specific defects in the acquisition of basic skills of reading, writing and arithmetic. Since these skills are very much needed for academic performance, the child regularly scores poor marks. He is blamed of 'not making real efforts' and ultimately he is branded as dull. This leads to conduct problems, reluctance to go to school, development of medically unexplained physical symptoms (for example, abdominal pain and vomiting in the morning only on school days),

poor self-esteem and parental frustration. Interestingly many of these children have exceptional skills in non-academic areas like artistic, kinesthetic, inter-personal and social domains. Unfortunately these talents go unrecognized and submerged in the focus of their poor academic performance. A careful look into the child's notebooks and detailed reports by teachers may be helpful in completing the assessment.

Specific tests to assess reading, spelling, arithmetic and writing skills like NIMHANS -SLD Index are administered in indicated cases.

Management of SLD involves remediation of various skill deficits by specially trained teachers. Individualized Educational Program should be planned for each child considering his deficits and skills, while the child is encouraged to continue education in mainstream school. This is a joint effort by the teachers, mental health professional and the parents. One should not expect quick results and should always take an encouraging attitude. Every little success by the child should be rewarded profusely. Teachers should make academic exercises lighter for him, by preparing special question papers. Such question papers should avoid long answer questions, and may include one word answer, MCQs, true or false, fill up the blanks, match the following etc. These questions may be read out to the child if he has a specific reading disorder. If the child is having a specific writing disorder, oral examinations may also be done. Remedying learning disorders is based on the simple principle, "if the child cannot learn the way he is taught, teach the child the way he can learn." The services of a trained remedial teacher may not be available in most of the places and hence, parents if educated may be trained to implement remedial teaching strategies. In many situations, ADHD and SLD may co-exist and both conditions should be treated simultaneously.

DISRUPTIVE BEHAVIORAL DISORDERS

Disruptive Behaviours may be a part of Attention Deficit Hyperactivity Disorder (ADHD) or may be predominantly oppositional and defiant behaviour (ODD). More pervasive "law breakers" are diagnosed as the Conduct Disorders -CD- (Juvenile Delinquency by the legal system). The differential diagnoses for conduct problems should include the impulsive behavior associated with ADHD, isolated conduct problems occurring in group settings, irritability associated with Depressive disorder in children

and antisocial acts in "true" CD. One should also keep in mind the possibility of adolescent turmoil and substance influenced behaviour before concluding that the diagnosis is CD. The influence of genetic and temperamental factors may be significant in DBDs. The adverse family environment and dysfunctions noted in this group need not be necessarily causative. It is possible that the same may be a creation of the shared genes and the difficult temperaments that run among the first degree relatives.

Usually the diagnoses in this group of problems are done with some reluctance not essentially because of the rarity of their presentation, but because of the fact that these conditions are not that easily amenable to interventions. A diagnostic label of CD may prejudice against any possible interventions as the professionals expect that this is destined to progress to adult antisocial behavior and psychopathy.

Behavioral and pharmacological treatment options should be exercised even in those conditions where diagnostic criteria of CD are met.

EMOTIONAL DISORDERS

Emotional disorders like Anxiety disorders, Obsessive Compulsive Disorders and Depressive disorders are not uncommon in children and they present in atypical ways. One common feature in all these cases is decline in scholastic performance. The common clinical scenario is anxiety disorders or depressive disorders presenting with unexplained somatic symptoms as described earlier. Panic disorder may present as palpitations, chest pain, dizziness, breathlessness or gaseous abdominal symptoms. Separation Anxiety Disorder may manifest as reluctance to attend school or abdominal pain associated with threatened separation from mother or care taker. Performance anxiety may manifest as "examination fear". Childhood Depression may present atypically with irritability and conduct problems. Clinical presentation of OCD in children may also be atypical and may be missed. The classical egodystonic nature of obsessions or the resistance to compulsions may not be seen in childhood OCD. The importance of recognising emotional disorders is that once identified, these are eminently treatable conditions by combining pharmacological and psychotherapeutic approaches.

EVOLUTIONARY PERSPECTIVE OF CHILDHOOD PROBLEMS

A "problem child" could be understood better if his problem behaviours are placed in an evolutionary perspective. The brain of the homo sapiens which has evolved 2 million years ago to meet the evolutionary challenges posed by the environment at that period of time is perhaps finding it difficult to cope with the fast pace of changes in and demands from the environment today as eloquently argued by authors like Alwyn Toffler in Future Shock. The academic demands expected of the child may not be in agreement with the way in which his brain is programmed. The concept of multiple intelligences put forward by Gardiner may explain SLD as normal variations understood as disorders by a rigid educational system.

Nature's way of preventing undesirable genes to be transmitted and survived is sabotaged by advances infertility treatment, pregnancy rescuing regimes and neonatal care. Are we paying the price for it by having increased prevalence of developmental and neurobehavioral disorders in children those who survive?

The human child's biological need to be nurtured by parents (especially mother) in early years of life is being altered drastically by unnatural causes like parental employment, separation and school placement. Could it not be a breeding ground for emotional disorders?

The adolescent's natural programming for independence, physical skills, environmental exploration are systematically blocked by different priorities in modern life. How far this is contributing to anxiety disorders, substance abuse etc in adult need to be explored.

CONCLUSIONS

The pattern of problem behaviour in children is heavily dependent on the setting in which they present. The understanding and management of the problem also differs based on clinician factors as well.

Medically Unexplained (Functional) Somatic Symptoms are very frequent presentations in paediatric settings. A proper referral can set the background of a healthy doctor-patient relationship, on which proper assessments and interventions can be planned. An explanatory model for the illness and

symptoms need to be provided to the child and parents in a way they can understand. A formulation based on behavioural principles should be evolved and discussed among the therapists - psychiatrist, paediatrician, counsellors and the parents. Behavior therapies should be consistently implemented and may be judiciously combined with pharmacological treatments. A clinician has to sensitively probe for hidden problems like emotional disorders, child abuse and specific learning disorders in children presenting with functional somatic symptoms. Professionals should work together and learn from each other in true spirits of liaison psychiatry to 'make sense out of the apparent non-sense' in a complex clinical problem like medically unexplained physical symptoms.

Poor Scholastic Performance is a common problem affecting at least 10% of school children and should be considered as a medical problem. A clinical approach and algorithm to the problem is suggested. Multiple medical, developmental and environmental factors can co-exist and contribute to PSP. A proper assessment by a multidisciplinary team headed by a medically trained specialist is essential. Management is also multidisciplinary and involves pharmacological, behavioural and pedagogical (remedial) interventions. Early identification and intervention is crucial. Development of school mental health services should be an area of priority for policy makers, educationists, paediatricians and mental health professionals.

Emotional Disorders like Anxiety and Depression should always be looked into in every case even when the presentation is for an apparently different purpose like poor school performance.

Disruptive Behavioural Disorders, though not uncommon, are seldom diagnosed as such and conditions with better outcome are considered as possibilities with a deliberate bias so that the benefit of any pharmacological or behavioural interventions may be obtained.

Family is useful as a base and platform in planning any management, including pharmacotherapy for the child with problem behaviour. Pharmacotherapy might lift the biochemical barrier in many of these conditions and may render non-pharmacological interventions more effective. A close liaison among multiple disciplines and professionals in different settings are needed to overcome the inherent biases in understanding and management of problem children.

An evolutionary perspective of problem behaviour in children may help all professionals working in differing settings to develop empathy to their young client's problems. High quality inter-disciplinary research capable of influencing policy making in academic, and pedagogic areas as well as social norms are necessary to make the lives of our younger citizens' happier!

Vulnerability and mental wellbeing in people with intellectual disabilities

Dr Roger Banks FRCPsych FRCGP(hon)

The increased prevalence of mental health problems in people with intellectual disabilities has long been recognised and repeatedly studied but the wider implications of not addressing the mental and physical health and wellbeing of this population and the factors that determine the same are only recently receiving due attention. It is a sad indictment of modern health services in prosperous countries that this focus has come about as a result of concerns regarding inequalities in health and its social determinants, discrimination and impaired access to appropriate and timely health care encountered by people with intellectual disabilities.

Though the increased prevalence of mental disorder is known, studies have shown a wide range of prevalence rates dependent on the population characteristics, setting, diagnostic criteria and instruments and simply what is and what is not regarded as mental disorder for the purposes of the study. Corbett (1979), using ICD 8 criteria and including problem behaviours, a history of past psychiatric disorder but not dementia, found a prevalence rate of 46%. Lund (1985) using Feighners and DSM-III, again including problem behaviour but not past disorder found a rate of 28%. More recently, Cooper et al (2007) found a point prevalence of 40.9% using clinical diagnosis and showed that problem behaviours were most prevalent. Despite the dominance of behaviour problems it has been repeatedly shown that people with intellectual disabilities show the same range of mental disorder as the general population. Yet it remains the case that the epidemiology is largely unknown, it is unclear what effect age, gender, physical illness, epilepsy or degree of intellectual impairment have, or what other factors may be

associated with specific mental health problems in this group (Smiley 2005).

Within the non-disabled population, the debate between nature and nurture, between biological determinants and life and developmental experiences continues though increasingly there is a synthesis emerging that combines models of predisposition or constitutional vulnerability together with the triggers or stressors of life events and experiences. Thus, inherited or constitutional vulnerability interacts with early childhood developmental and psychological influences, physical illness, stressful life events for example in the manifestation of symptoms and identified psychiatric illnesses.

There is, however, a growing awareness of the impact of social determinants on health (Marmot 2010). [Income](#) and [social status](#), [social support networks](#), education and [literacy](#), [employment / working](#) conditions, social and physical environments, life skills, gender and culture.

The environment in which children are brought up is a significant determinant of both their immediate and long-term health, socio-economic adversity having been shown to affect adult physical and mental health and the risk of disability. Children with intellectual disabilities are vulnerable and less resilient, therefore exposure to adversity may have a more damaging effect than on other children.

What evidence is there for this? An example is in the study of Emerson and Hatton (2007) who looked at psychiatric disorder in children and found a prevalence of 8% in children without intellectual disability but 36% in children with intellectual disability (autistic spectrum disorder, hyperkinesis, conduct disorders in particular; children with ID accounted for 14% of all British Children with a diagnosable psychiatric disorder. However, the most salutary finding was that of a cumulative risk of exposure to social disadvantage

being associated with increased prevalence; social disadvantage being identified as:

- Lone parent family
- Income poverty
- Exposure to two or more negative life events
- Poor family functioning
- Primary carer has no educational qualifications
- Household with no paid employment
- Mother with potential mental health disorder
- Maternal self-rated physical health less than 'good'

Feinstein (2003) studied inequality in the early cognitive development of British children and demonstrated that children who at 22 months were determined to have low ability showed some improvement between this age and 10 years. For children in high socio-economic status families the improvement in cognitive functioning maintains a steady rise, those with low socio-economic status showed an initial improvement which plateaued after around 4 years of age. However, children of high cognitive ability born into low socio economic status families showed a marked and sustained decline in ability, such that in this cohort their functioning at the age of 10 fell below that of the children of low ability from high SES families.

On a background of the relative duration and depth of poverty, the accumulated exposure to a range of material and psychosocial adverse factors, moderated by both vulnerability and resilience, determine our wellbeing both in the short and long term.

Given these developing insights, we should be thinking about the mental wellbeing of people with intellectual disabilities from a different perspective. Whilst the assessment, diagnosis and treatment of mental disorder is essential, health and social care professionals, public health services and government policy and legislation should

also consider the part they have to play in addressing the prevention or amelioration of such disorders.

At the practitioner level care and treatment plans should be concerned with identifying and modifying where possible, vulnerabilities in the biological (brain damage, sensory impairments, genetic conditions, epilepsy, iatrogenic effects), psychological (self-worth and self-image, poor coping skills, bereavement and loss, expectations of failure, dependence) and social spheres (economic disadvantage, inadequate or inappropriate living environments, exposure to adverse events, poor social networks, disadvantage and discrimination). Interventions should also focus on building and sustaining resilience and a protective environment, through, for example, promoting a sense of self, autonomy and mastery, enabling secure and competent family-based environments for early development, protection from exploitation and abuse.

In a time of global economic crisis, increasing inequalities in health, conflict and climatic disaster, there is always the risk that the disabled and disadvantaged are not prioritised in matters of social welfare and inclusion. As professionals working to meet the needs of this group, we have a role of clinical advocacy in which we should continually seek to remind ourselves and others that “the health and strength of a society can be measured by how well it cares for its most vulnerable members” (Michael et al 2008).

References:

Cooper, S-A., *et al* (2007) Mental ill-health in adults with intellectual disabilities: prevalence and associated factors. *British Journal of Psychiatry*, **190**, 27-35.

Corbett, J. A., (1979) In *Psychiatric Illness and Mental Handicap* (eds F E James and R P Snaith). Gaskell Press, London; 11-25

Emerson, E., Hatton, C., (2007) Mental health of children and adolescents with intellectual disabilities in Britain. *British Journal of Psychiatry*, **191**, 493-499

Feinstein, L., (2003) Inequality in the Early Cognitive Development of British Children in the 1970 Cohort, *Economica*, **70**, 277, 73-97

Lund, J., (1985) The prevalence of psychiatric morbidity in mentally retarded adults. *Acta Psychiatr Scand* **72**, 563-70

Marmot, M., *et al* (2010) Fair Society, Healthy Lives: Strategic review of health inequalities in England post-2010. Department of Health, London

Michael, J., *et al* (2008) Healthcare for All: report of the independent inquiry into access to healthcare for people with learning disabilities. Department of Health, London

Smiley, E., (2005) Epidemiology of mental health problems in adults with learning disability: an update. *Advances in Psychiatric Treatment*, **11**(3), 214-222

Health of The Carer

Dr. Ninan Kurian

Caring for someone can be very demanding, though many willingly take on the responsibility to care for a close relative or a friend, can a few may have no choice. Caring has its rewards and many carers feel pride in what they do. But there are times when carers feel depressed, angry, frustrated, bored or tired out. This is when they need help.

The quality of caring also depends on the physical and mental well-being of the carer. So many carers, even when they themselves are not feeling well, do not share the burden of care or even their feelings with anyone else. Many carers feel that they lead very restricted lives with little opportunity to develop their own interests, often due to assumed social expectations. To remind the reader who is a carer, you do still exist as an individual and not just as a carer for someone else. Sometimes we get too entangled in the philosophical and moral issues than practical and realistic objectives.

Becoming a parent and bringing up a normal child is itself very challenging. But having a normal child and watching his or her development through the early stages, academic performance, meaningful relationships, marriage, career and through them becoming a grand parent, makes it all worthwhile. Caring for a normal child is thus more predictable and models of care are seen all around. But unfortunately the caring for a handicapped child is much more unpredictable and the parents see no models to follow. So during the initial stages, every parent goes through severe grief and confusion. Sometimes the worse scenario could be that the parent is not expected to express is on the baby and often the needs of the parents are forgotten.

To list the emotions the parents may feel in reaction to the handicap may include

two 'biological' reactions:

protection of the helpless

revulsion at the abnormal

Two feelings of inadequacy

inadequacy of reproduction

inadequacy of rearing

Three feelings of bereavement

anger

grief

adjustment

Other

Shock, guilt or embarrassment.

If one can understand that these are normal reactions for every human being to have, it will become less difficult to deal with them.

Denial is often the first reaction to any traumatic event or situation. When a person is in denial, he or she refuses to believe what is true, even in the face of all the evidence. This is a very protective mental defence mechanism. It absorbs the impact and reduces the pain. It gradually helps in readjusting. But sometimes denial can become too prolonged and pathological if the person is not helped to face the situation and supported through it. So when the parents of the handicapped child persist in denying the handicap, this often delays seeking help and valuable time to help the child is lost.

When each parent is going through different stages and levels of adjustment, mutual support and empathy are vital to the survival of the family. Openness, genuineness and mutual positive regard are the corner stones to nurture any good relationship. Two together will achieve great deal in dealing with the difficult situation and their own emotional problems.

Close relatives often find it more difficult to understand or accept the situation. They may facilitate denial or collude as though it is a family secret. Sometimes they may become overinvolved, over sympathetic or

critical. On the other hand, some may try to distance themselves.

Giving practical help, not advice, is the best that relatives and friends can do.

Giving practical help, not advice, is the best the relatives and friends can do.

'Normalisation' of the child and family is important. By normalisation, what is meant is to do what a child of that age or families at that stage would normally do, without the handicap. The handicap of one person should not become the whole preoccupation of everyone concerned, but a task everyone shares.

Though times have changed, the mother still remains the main carer in most societies. She is often disadvantaged by not being employed outside the home and has much less social life. She often feels isolated and lonely. She may become clinically depressed, which is a serious mental condition with sleep disturbances, loss of appetite, loss of energy and feelings of hopelessness. This will need active medical intervention. Full recovery is possible.

Physical problems may develop for the carer due to improper handling of the child, emotional problems or inadequate self care. Proper exercise, a balanced diet, leisure and health checks are as important for the carer to lead a healthy life as for anybody else.

When you care for someone with a handicap, you should be realistic. Carers often set such high goals for themselves and for the person they care for that there is more chance to fail, which leads to further frustration. Be informed about the condition and know what can be done and how much can be achieved. Then you will know what you and the person you care for can do, and this need gives the ability to seek. Counselling can help to express your fears, think through problems and deal with emotions while feeling supported.

The greatest amount of support and advice can come from other carers - people like yourself. By talking to someone who is faced with a similar situation you may find answers to some of your difficulties. Voluntary organisations can help in giving information, practical help and fighting for more resources.

Attention Deficit Disorder

Mathew Kanamala

A 1987 Report to Congress prepared by the Interagency Committee of Learning Disabilities attributes the probable cause of ADD to “abnormalities in neurological function, in particular to disturbance in brain neurochemistry involving a class of brain neurochemicals termed ‘neurotransmitters’. Researchers are unclear, however, as to the specific mechanisms by which these neurotransmitter chemicals influence attention, impulse control and activity level.

Although many ADD children tend to develop secondary emotional problems, ADD, in itself, may be related to biological factors and is not primarily an emotional disorder. Nevertheless, emotional and behavioural problems can frequently be seen in ADD children due to problems that these children tend to have within their school, home, and social environments. Such Characteristics as inattentiveness, impulsivity, and underachievement can also be found in non-ADD students who suffer primarily from emotional difficulties leading to diminished classroom attentiveness and performance. Differential diagnosis, therefore, is an essential prerequisite to effective treatment.

Treating Attention Deficit Disorder :

Treatment of the ADD child usually requires a multi-model approach frequently involving a treatment team made up of parents, teachers, physicians, and behavioural or mental health professionals. The four corners of this treatment program are as follows.

and Norpramine have also proved successful in treating the disorder. All these medications are believed to effect the body's neurotransmitter chemicals. Deficiencies of which may be the causes of ADD. Improvements in such characteristics as attention span, impulse control and hyperactivity are noted in approximately 75% of children who take psycho stimulant medications. It is important that teachers are informed about all medications that an ADD student may take as teachers need to work closely with the child's and other helping professionals in monitoring medication effectiveness.

Medication side effects such as appetite loss, sleep difficulties, and/or lethargy in the classroom, among others, can often be controlled through medication dosage adjustments when reported by the child's parents or teachers.

Teaching Students With Attention Deficit Disorder

The most effective treatment of ADD requires full cooperation of teachers And parents working closely with other professionals such as physicians, psychologists, psychiatrists, speech and educational specialists, etc. In the coordinated efforts to ensure success in the lives of children with ADD the vital importance of the teacher's role cannot be over estimated. Dennis Cantwell, M.D. claims, "Anything else is a drop in the bucket when you compare it with the time spent in school".

Recommendations for the proper learning environment

1. Seat ADD students near teacher's desk, but include as part of regular class seating.
2. Place ADD student up front with his back to the rest of the class to keep other students out of view.
3. Surround ADD student with "good role models", preferably students that the ADD child views as "significant others". Encourage peer tutoring and cooperative collaborative learning.