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Children with autism deserve evidence-based intervention

The evidence for behavioural therapy

AUTISM IS A DEVELOPMENTAL DISORDER characterised by impairment of communication and social interaction, and stereotyped, restricted patterns of behaviour. The young child with autism fails to develop normal language and imaginative play. Autism (or autistic disorder) affects one in 1000 children and is the core disorder of a wider spectrum of pervasive developmental disorders. Australian paediatricians identify it as one of the more difficult areas of practice¹ — there is still no cohesive explanation for the child's developmental arrest, and a plethora of therapies exist.

Diagnosis needs to be made by a multidisciplinary team. Parents then face a long list of possible interventions, and will usually be directed first to speech pathologists. Sensorimotor integration therapy (which stimulates or desensitises visual, auditory and tactile senses), and dietary interventions (eg, casein and gluten exclusion) are widely practised in Australia, but data for their efficacy are inadequate.^{2,3} A controlled trial of auditory integration (where the patient listens to music that has been computer modified to remove frequencies to which he or she is hypersensitive) showed no effect, yet it continues to be offered as a therapy.² While ineffective therapies may be harmless, they waste parents' money and the child's valuable therapy time. Furthermore, the delay in implementing effective treatment may compromise the child's outcome.

Augmented communication, using visual modes such as pictures, symbols and signs, promotes communication and language in children with severe communication deficits and poor verbal imitation skills.⁴ However, the early intervention that has been subjected to the most rigorous assessment is behavioural intervention. There is now definite evidence that behavioural intervention improves cognitive, communication, adaptive and social skills in young children with autism. In 1987, Lovaas showed apparent recovery, persisting into adolescence, in nine of 19 young children who received an intensive home-based intervention based on applied behavioural analysis, a scientific method of reinforcing adaptive and reducing maladaptive behaviours.^{5,6} Subsequent studies also showed that behavioural intervention caused significant, albeit somewhat lesser, gains.⁷⁻¹¹ This has modified the orthodox view that autism is always a severe, lifelong disability. Criticisms of the adequacy of the design and power of these studies are being addressed by the multi-site Lovaas replication Early Autism Project. The first US site has released data (Wisconsin Early Autism Project).¹² Again, after three to four years of intensive applied behavioural analysis intervention, about half the preschool children with autism acquired near-normal functioning in language, performance IQ and adaptability. Ninety-two per cent of intervention children acquired

some language. Control children who received special education showed no gains in IQ or adaptability.¹²

Why is intensive applied behavioural analysis intervention more effective than special education for children with autism? This can not be simply explained by the intensity of these programs (30–40 hours per week). Children in a school-based Scandinavian study who received behavioural intervention gained an average of 25 language IQ points in the first year of the intervention, with improvements in performance IQ, communication and adaptability. On all scores, they surpassed control children who received special education according to best practice for autism, and the same intensity, duration and supervision of therapy.¹³

The superior outcome from behavioural intervention is thought to result from the targeting of specific deficits in autism that prevent learning: imitation, attention, motivation, compliance, and initiation of interaction. Skills are taught in small steps, mastered, and then generalised. Intensive, individualised one-to-one therapy is usually provided by students, behavioural therapists, or parents, under the supervision of behavioural experts. More natural settings of play and learning, augmented communication support, and other powerful visual learning tools, such as video modelling, may be used. Parents play a major coordinating role, and are trained to generalise the skills learnt by the child and to provide incidental teaching. Only positive reinforcement is used to teach the children.

Several preschool programs in the United States and the United Kingdom report comparable success to home-based behavioural programs. These programs have low child-to-staff ratios, collect detailed behavioural data, generally integrate the children with typically developing peers, and train parents intensively in behavioural methods.¹⁴

However, most young children with autism in Australia do not receive intensive behavioural intervention programs — partly because such programs are not recommended by many health professionals and partly because of their prohibitive cost for families. Only Western Australia has achieved partial government funding for preschool behavioural programs, as justified by a review by the Disability Services Commission of Western Australia.¹⁵ This State is also the first to have a prospective autism register, placing it in a unique position to provide Australian outcome data.

We are unaware of comprehensive Australian outcome data (from specialised preschools and schools for autism) with which to compare outcomes of applied behavioural analysis programs. For those of us who are parents of children with autism, this seems to be a pressing need. In the United States, parents have effectively advocated for evidence-based interventions using expert statements.² If intensive behavioural programs in young children with autism allow about half of the children to no longer require special education and other costly interventions, government funding of such programs would provide economic

returns in the long term. The returns to the children who respond and their families would, of course, be priceless.

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Translating advances in schizophrenia treatment: a glass ceiling

Reforms to the management of schizophrenia in Australia have stalled

A DECADE AGO, the management of schizophrenia languished in medicine's backwaters. Treatment still occurred in asylums, using drug therapies serendipitously discovered decades earlier. Even these had proved ultimately disappointing and were used in excessive doses, with inevitable serious adverse effects, a great deal of suffering and only modest benefit. Psychosocial treatments were similarly obsolete or simplistic, with a weak evidence base. Therapeutic nihilism was pervasive and stigma profound. The public knew little about schizophrenia and gave little thought to it unless they happened to be directly touched by the disorder in their own lives. The Burdekin Report graphically captured this bleak scenario.¹

The situation 10 years on is much more promising. Spurred on by the reintroduction of clozapine, a new wave of drug discovery has produced a second generation of antipsychotic drugs. Because of their better tolerability, and boosted by potent marketing campaigns, these "atypical" drugs have now become the first-line treatment in Australia and have engendered greater optimism in managing schizophrenia. Psychosocial treatments have undergone a similar renaissance,² with the advent of evidence-based family interventions, cognitive behaviour therapy for persistent psychotic symptoms, and vocational rehabilitation models. The first National Mental Health Strategy catalysed an overdue reform process and created a real sense of progress. Early intervention strategies, not seriously attempted previously in schizophrenia, were effectively developed in Australia, evaluated and exported.³ The prospects for people with schizophrenia never seemed better.

However, the potential for greatly improved outcomes has not been realised in Australia. The daily reality for most people with schizophrenia is that quality of treatment and quality of life are relatively poor.⁴ Many live in poverty in substandard housing, having little to occupy their time and

trying their best to cope, often with the aid of harmful amounts of legal and illegal substances. The plight of family members is also serious and all too often leads to frustration and despair. Despite the early intervention reform, which is being taken up enthusiastically overseas,³ long delays in obtaining treatment for first episodes of schizophrenia are still common. Treatment is typically withheld until it can no longer be denied.⁵

In 2002, the Mental Health Council of Australia was contracted by the Federal Government to conduct a comprehensive review of the mental health system. The review concluded that, despite a decade of reform, Australia still does not have effective or accessible mental healthcare. Serious under-resourcing was identified as the fundamental cause. By the end of the 1990s, the devolved and mainstreamed mental healthcare system had developed a raft of problems. The reform process had stalled behind the complacent facade of a "mission accomplished".

A recent review of Victoria's mental health services by the State's Auditor General found evidence of unmet need, poor access to and continuity of care, and low levels of satisfaction with services — problems attributed primarily to under-resourcing.⁶ Similar problems are likely to exist in other States. Furthermore, a substantial proportion of people with schizophrenia, whose management requires a team approach with specialist review, are being managed in minimalistic fashion by general practitioners with insufficient support from a beleaguered and reactive specialist system. As a result, despite significant advances in treatment efficacy, there is a vast gap between efficacy and effectiveness, which could be bridged if it were possible to implement optimal evidence-based treatment.

The Royal Australian and New Zealand College of Psychiatrists is poised to release new clinical practice guidelines for the treatment of schizophrenia.⁷ The guidelines empha-