

Book Reviews

Neuro-Developmental Treatment Approach: Theoretical Foundations and Principles of Clinical Practice

By Janet M Howle, California, Neuro-Developmental Treatment Association, 2003, pp 381, US\$85.00 plus p&p
Order from NDT Association: <http://www.ndta.org/>
ISBN 0 9724615 0 7 (Hardback)

This substantial book is the culmination of twelve years' work by the Neuro-Developmental Treatment (NDT) Association Theory Committee in the US. The book's purpose is to provide a review and update of an approach to therapy for people with neurological movement disorders, primarily those who have had a stroke and/or have cerebral palsy (CP), known as the Bobath Approach or NDT Approach. The approach was introduced in England by the late Dr and Mrs Bobath in 1943, and was subsequently developed by them. During their lifetime the approach was taught (and continues to be taught) to numerous therapists and doctors, and has been adopted as a major therapy approach in many parts of the world. It continues to be significant in the management of people with neurological movement disorders.

There are five chapters in the book, four of which give an explanation of how the approach has been developed, a description of the current theoretical basis, and application of the approach as it is interpreted and practised in North America. Chapter 1, entitled 'Current theoretical foundations', describes the development of NDT in North America and outlines the general assumptions which the NDT Association Theory Committee claim to contain the original ideas proposed by the Bobaths. It is suggested that these characterize the NDT Approach and distinguish it from other approaches. A further ten assumptions are then presented, which outline NDT 'best practise standards'. The theoretical model presented outlines a combination of several scientifically based models: systems theory, neuronal selection, and Generalized Motor Programs, and includes a discussion of motor development and motor learning. The discussion of these many models and ideas is interesting but the reader is left unsure of the actual knowledge-base and, as the author points out, much of the evidence supporting these theories has resulted from research on individuals without neuromotor disability and, therefore, should be viewed cautiously.

Chapter 2 specifically focuses on describing movement dysfunction using the World Health Organization International Classification of Functioning and Disability.¹ This useful model can be effectively applied to the Bobath/NDT Approach, so it is not clear why the term 'NDT enablement classification of health and disability' is adopted (p 81). It is suggested that rather than introducing a new term to an already terminology-flooded world, it should be possible to incorporate the essential 'hows' and 'whys' into the World Health Organization model; thus fostering a uniform approach to people with neuromotor disabilities, without the introduction of yet another form of classification. The latter part of the chapter gives a clinical example of the problem solving process employed by NDT therapists using the enablement model. It also discusses the evidence supporting

NDT practice, acknowledging that evidence is insufficient to support the use of NDT over other approaches. But it is not surprising that the evidence base for NDT is so limited, considering that it is not a uniform approach delivered in a standardized way. However, this chapter does provide an effective framework for reviewing NDT efficacy literature, which also has the advantage of providing basic guidelines for an effective study design for evaluating NDT and development of an evidence base for its practice.

The examination process is described in detail in chapter 3, including the use of various outcome measures to document the person's abilities. Unfortunately, the examples given of a child and an adult are too detailed and not concisely presented. However, both assessments emphasize the need for the therapist to assess the potential for change via handling during the examination, stressing the idea that assessment and management go hand in hand for NDT. Given that the emphasis is on a client-centred approach, it is a pity that the functional outcomes are divided into discipline specific outcomes.

Chapter 4 presents two case studies which illustrate the application of NDT to the management of a child with CP and an adult following a stroke. The child study explains the therapy strategies used to achieve this child's goal to stand and walk independently of her caregiver. Many activities are carried out during this session, which appear to have a developmental and biomechanical basis; the play is imaginative and fun, even if the activities perhaps could have been more specific to her needs. As this child is walking with minimal assistance, the time spent in prone and sitting on a big ball during treatment was not really to the point. The programme for the adult patient works on his desired goals, and uses his hobbies to motivate his participation in the rehabilitation sessions.

Chapter 5 describes the NDT interpretation of the development of the Bobath Approach, including personal details about Dr and Mrs Bobath. It is suggested that the Bobaths themselves changed the name of their approach to NDT. Whilst it is true that they described it as a neurodevelopmental approach, in the UK where Dr and Mrs Bobath lived and worked, and in Europe, they always referred to it as the 'Bobath Approach/Concept'.

The hallmark of the approach is the detailed problem solving, analytical, and interpretative process used to understand and manage the neurologically impaired person's participation restrictions. The way in which that process is executed depends on the theoretical basis adopted: while NDT uses a dynamic systems approach with a biomechanical emphasis (p 23), others, e.g. in the UK, work more from a neurophysiological perspective, which was the original emphasis of the Bobaths (see chapter 5). This basic difference in philosophy shapes the interpretation and practice of the approach, and has resulted in changes in application in North America and in other countries which have adopted the NDT interpretation of the approach. Thus, the problem in reviewing this book is that it gives one interpretation of an approach which has been adopted by therapists in countries worldwide. On the other hand, there have been no books published about NDT/Bobath since the Bobaths died in 1991, and consequently the author of this new publication and the NDT Association Theory Committee should be congratulated for producing this work and for doing it so thoroughly.

This book is a welcome addition to the literature which

has been severely lacking in current up-to-date information about this therapy approach and which seems to be commonly used world-wide as a basis for therapy intervention, particularly for children with CP. This book will be of interest to therapists working within the NDT/Bobath framework, but for the wider readership it gives a view which is biased toward North American interpretation and practice, and should be viewed in this context. Hopefully, it will challenge therapists using the approach in other parts of the world to put pen to paper.

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Reference:

1. World Health Organization. (1999) *ICIDH-2: International Classification of Functioning and Disability. Beta-2 Draft Version*. Geneva, Switzerland: World Health Organization.

Neuropsychological Evaluation of the Child

By Ida Sue Baron

USA, Oxford University Press, 2003, pp 454 £55.00, US\$79.95
ISBN 019514757X (Hardback)

This book is intended to be a desk reference with accessible normative data covering a variety of neuropsychological tests for children. As the author points out, while compilations of normative data for adolescent and adult groups are well established (Lezak 1995, Spreen and Straus 1998), a similar compilation specific to children was sorely needed.

The book is divided into three main sections. The bulk of the information is contained in the final section, and is concerned with providing descriptive information and normative data for specific tests. However, the first two sections provide useful contextual information regarding the status of child neuropsychological as a clinical discipline, and practical issues of conducting assessments and communicating results. As one might expect from a seasoned practitioner, these sections are thoughtfully written and practical, including summary tables, useful references, a sample questionnaire for history taking, and an example of a written report.

The main section, on domains and tests, is clearly written and well organized with full and separate indices for subjects and tests. A vast array of tests are covered, spanning domains such as learning and memory, executive function, language, sensorimotor and visual functions. Commonly used and well established intelligence tests are also listed, and summary information is provided. I found this section to be reasonably comprehensive in familiar areas of assessment, providing a fresh perspective on the tests that I regularly use. The text was informative on occasions where I was less able to judge specific tests, and I felt would have given me a reasonable chance of selecting appropriate new tests when expanding my repertoire.

Clearly the book is not a stand-alone resource and one would have to purchase materials or acquire further information in order to use the vast majority of the tests. In terms of normative data, one of the particular strengths of this book is the inclusion of a range of data applicable to

non-English-speaking children. While this is certainly useful, the range of data is skewed towards North American demographics and may be less useful other audiences. Furthermore, when using the normative data, purists may have some concerns about the lack of a clear distinction between UK and US norms for some of the tests.

I believe that the strength of this book is a timely, well-organized, and carefully crafted descriptive account of neuropsychological tests for children. There is sufficient detail on aspects of test administration and normative data to permit critical appraisal of a wide range of tests to suit a particular purpose. The book is certain to be useful in supporting clinicians who wish to expand their assessment repertoire, or researchers who seek a specific test or previously unpublished normative data.

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Ingram Wright

A Clinical Guide to Epileptic Syndromes and their Treatment

By C P Panayiotopoulos

Oxford, Bladon Medical Publishing, 2002, pp 278
£39.95, US\$65.00
ISBN 1 904218 23 7 (Hardback)

This is the first book based on the new 2001 diagnostic scheme of the International League Against Epilepsy. Recent advances in epileptology have made it possible to recognize accurately epileptic syndromes and manage seizure disorders.

The author has presented a concise description of all epileptic syndromes in neonates, infants, children, and adults. The tables, practical tips, differential diagnoses, and management are very well described and will be extremely useful to all clinicians. One of the important features of this book is the up-to-date description of all epileptic syndromes: not only established descriptions, but also those still in development. These descriptions are well supported with EEG and brain imaging illustrations. In addition, the text is supported with the use of boxes, highlighting, and illustrations in full colour.

The first chapter on diagnosis of epilepsies is very well written. It describes the optimal utilization of the EEG and brain imaging in diagnosis and treatment of epilepsy. It reminds us that the value of routine interictal or ictal EEGs in epilepsies should neither be underestimated nor overrated. The case histories described with the EEG and neuroimaging are good teaching aids. Epileptic syndromes are very well described with definitions, clinical features, useful investigations, and appropriate treatment and prognosis.

The book is user friendly. I see it as a very helpful reference work for all those who care for patients with epileptic seizures, including paediatricians, physicians, epileptologists, and electroencephalographers. There is no doubt that it will have far reaching benefits.

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