LETTERS TO THE EDITOR

Forest Town School for Cerebral Palsied Children.
15th July, 1974.

The Editor,
Journal,
South African Society of Physiotherapy,
P.O. Box 11151,
Johannesburg.

Dear Madam,

A comment on the article "A short reappraisal of the Principles of treatment in Cerebral Palsy" by Miss S. Irwin-Carruthers in Physiotherapy May 1974, seems called for to elucidate certain points that may possibly be misleading.

Firstly, may I acknowledge the article as a valuable summary of the neurodevelopmental approach, which should be useful to all students and therapists who are working in this field. That this approach is basic in the treatment of cerebral palsy is now generally accepted. (That is why acquisition of knowledge of this approach is a prerequisite in this Department and eight of the eleven therapists are fully Bobath trained). Unfortunately, the approach falls into disrepute when its disciples fail to keep up with its originators, who declare that they take the ideas of Peto, Voijta, PNF, absorb them, make them their own and use them, also claiming eclecticism (Personal communication 1972). This is why the originator of the approach remains the greatest therapist in the world in the treatment of cerebral palsy.

It cannot, however, be stressed enough that an eclectic approach can only be successfully employed by therapists with a thorough understanding of normal development (Peiper 1936) and the disturbances of motor function in cerebral palsy (as far as present knowledge allows) (Bobath 1972) as well as of the different treatment methods. It is therefore safer for undergraduates or inexperienced therapists to stick to one approach, even though the end result of treatment may not be as good as it would have been had different methods been used to deal with the multifarious problems which arise in cerebral palsy.

It is also necessary to recognise that different methods of treatment have evolved, using the same sound neurophysiological principles on which the neurodevelopmental approach is based. One cannot ignore the work of Kabat and Knott, Rood, Brunnstrom and Voijta. In addition, as a caution, the oft quoted thought "neurophysiclogic" doctrine is a most perishable commodity and it is a mistake to pin one's hopes on a current interpretation" (Mead 68).

As far as planning treatment is concerned, do we really want to retain primitive patterns by utilising them early in treatment (as does Brunnstrom) or do we want to inhibit their effect and facilitate secondary responses? I think that here misunderstanding may be merely a matter of semantics. The argument against surgery and bracing admirably describes the difficulties which may arise and be perpetuated when conditions for using surgery in cerebral palsy are not favourable. It is absolutely necessary to have a unit where the surgeon is not only conversant with the neurological condition of the child who has secondary orthopaedic problems (Samilson 66) but who is also prepared to work with the therapists (Holt 66), thereby ensuring that the patient is wholly controlled and all treatment integrated.

Most of the unfavourable changes should be avoided or overcome, but it should be pointed out that certain others, e.g. circulatory problems, are a primary symptom in cerebral palsy (Ingram 73) as are sensory disturbances. These may in fact be improved by the increased mobility produced by surgery.

As far as the shunting of spasticity is concerned, more recent studies have shown that even simple tendon release often results in unexpected improvement in a tone in a whole extremity as well as the homologous limb. (Nathan and Dmitrijevic 1967). This has been one empirical observation also.

Appliances, when used with discretion, are what they ideally should be, a therapeutic aid, not a substitute for treatment.

The argument against surgery and bracing may have been valid ten years ago, and still be so where the orthopaedic approach to this problem is ill considered and indiscriminate, and where there is no experience in post-operative treatment. But it does not apply if one uses the principles of treatment so well described in the article under discussion, and combines them with judicious use of braces and surgery, as is being done increasingly in recognised overseas treatment centres (Milani Comparetti, Prof. Matthias). Dr. and Mrs. Bobath also recognise the need for surgery, although they are still very critical generally (Personal communication, 1968, 1973).

Certainly surgery and bracing should be avoided where facilities are not adequate to cope with the difficulties which may arise. The use of surgery has been a hotly debated issue for many years, but the controversy may not be a meaningful one as one cannot evaluate a method from a totally different conceptional framework.

Possibly our approach has been rather narrowly interpreted. It is also unfortunate that surgery is often evaluated in respect of severely involved children, who present for surgery, after years with or without treatment, with severe deformities and very little potential.

In some instances it may take many years of skilled therapy to establish the benefit from surgery. It is a fallacy to think that only untreated children develop deformities.

Indeed, the answer is to avoid unnecessary surgery. That is why the two primary indications for surgery are firstly for the correction of deformities and secondly to prevent the formation of deformities where concerted physiotherapy is failing to do so. (Craig, 1973).

I wholeheartedly agree that one would not plan to eliminate a Moro-reflex by hamstring transfer, but should the Moro disappear after a child has undergone surgery to prevent dislocation of the hips and to correct hamstring deformity, then I am indeed grateful for the fringe-benefit.

It has also to be borne in mind that the habilitation of a child should be viewed in relation to his daily functional requirements. One often has to compromise between the excellence of movement patterns obtained in limited therapy sessions and the imperfect carry-over of these movements into the activities of daily living. Concerned as we are with the development of the child as a whole, especially as regards his personality and independence of mind and body (Erikson) we cannot afford to sacrifice function to prove superiority of any particular treatment **per se.**

Finally, let us remember that we are not considering any rigid or dogmatic technique of treatment, but that it is the neurodevelopment **approach** to the treatment of the cerebral palsied. Thoughtful application coupled with procedures which have been empirically proved beneficial in no way detracts but certainly enhances the results of treatment.

As summarised by Gillette (1969) "The complexities of the child with cerebral palsy present problems which can be approached by way of many treatment philosophies. Assumptions as to cause and effect relationships may be disturbing as a new system is brought into focus, but as its techniques become familiar, they are incorporated into the armanentarium of the therapist, and the child's disabilities may be further minimised.

Systems of therapy which are yet to be developed will add further knowledge of the mechanisms of the central nervous system. The therapist of the future will have an ever-broadening choice of stimuli, and more effective means of compounding reflexes to produce a co-ordinated motion."

In this field, where much more is to be learnt than is already known, above all is needed an open and enquiring mind to possibly share in the excitement of discovery.

I am,

Yours faithfully,

A. MATHIAS,
Senior Physiotherapist.

REFERENCES

1. Bobath, Dr. K. and Mrs. B. Personal Communication 1968, 1972.
2. Peiber, A. Cerebral Function in Infancy and Childhood. Pitman Medical, 1963.
3. Bobath, K. and B. (1972) "Cerebral Palsy" Physical Therapy Services in the Developmental Disabilities." Edited by Pearson, P. H. and Williams, C. E.
4. Gilette, H. E. Proprioceptive Neuromuscular Facilitation".
5. Voijta, Prof. Personal Communication, 1972.
6. Brumstrom, S. Movement in therapy in Hemiplegia, Harper & Row Publishers, 1972.
7. Mead, S. (1968). "The treatment of Cerebral Palsy" (Presidential address to the American Academy of Cerebral Palsy, 1967).
8. Samilson, R. L. Principles of Assessment of the Upper Limb in Cerebral Palsy. Clinical Orthopaedics No. 47 July/August, 1966.
9. Holt, K. S. "Assessment of Cerebral Palsy Vol. I, Lloyd — Luke (Medical Books) Ltd., London.
10. Ingram, T. S. 1973. "Cerebral Palsy" Textbook of Paediatrics. Eds. J. O. Farfal, G. C. Arneil, Churchill Livingstone.
11. Nathan, P. W. and Dmitrijevic, M. R., 1967. "Studies of Spasticity in Man", Brain. Vol. 90, part 1.
12. Prof. Milani Camparetti. Personal Communication 1968, 1972.
13. Prof. H. Matthias Münster C.P. Clinic. University Orthopaedic Clinic. Personal Communication, 1972.
14. Bobath, Dr. K. and Mrs. B. Personal Communication 1968, 1972.
15. Craig, J. J. (1973). "The Orthopaedic approach to the treatment of Cerebral Palsy", South African Medical Journal 47, 1904-8.
16. Erikson, E. H. "Childhood and Society". Penguin Books, Hogarth.