# Cerebral Palsied Children

## By Francisco C. Tan and Conchita Tan

GENERAL PALSY popularly but erroneously called paralysis or just orthopedic disability is a condition in which muscular control is slightly or severely lost. It is a neurological impairment. Dr. Perfstein, chief of the Children Neurology Clinic, Chicago, defines C.P.1 as a condition characterized by paralysis, weakness, incoordination, or any abnormality of motor function due to involvement of the motor-control center of the brain. Generally, cerebral damage is not limited to a single area in the brain, many associated defects are found in addition to the motor involvement. There are three most commonly observed neuromuscular disabilities among the cerebral palsied individuals such as: athetosis, spasticity, and ataxia.<sup>2</sup> Some doctors include tremors<sup>3</sup> and rigidity as other classifications for cerebral palsy.

Although medical study shows that generally the over-all cause of cerebral palsy is injury to the brain,

there are numerous ways in which brain damage may occur.

### Causes of Cerebral Palsy:

- 1. illness of the mother during pregnancy
- 2. prematurity
- 3. maldevelopment of the brain
- 4. anoxia
- 5. instrumental injury to the brain during delivery
- 6. (Rh factor)

<sup>1</sup> C.P. as used here means cerebral palsy.

<sup>2</sup> Athetosis is chiefly characterized by involuntary, purposeless musicle movements; spasticity is characterized by the tightening of the muscles that slows down motion and makes them stiff; and ataxia is characterized by lack of balance.

<sup>3</sup> Tremor which is seldom found among the C.P.; it is characterized by involuntary reciprocal motions; rigidity is characterized as a resistance of the muscle when the joints are flexed; it lack muscle tone and involuntary movements do not occur.

JANUARY, 1958 PAGE 57

- 7. infectious diseases after birth
  - a. measles
  - b. mumps
  - c. chickenpox
  - d. encephalitis
  - e. whooping cough
  - f. traumatic injuries to the brain and cerebral hemorrhages that usually occur during old age

#### Cerebral Palsied Children in the Philippines

To date there is no valid or accurate statistics of the number of cerebral palsied children in the Philippines. Dr. Deogracias J. Tablan, In-Charge of the Elks Cerebral Palsy Clinic, National Orthopedic Hospital, Mandaluyong, Rizal, estimated that there are about 40,000 cerebral palsied children and adults in the Philippines basing his estimate from the records of the National Orthopedic Hospital since 1949. The authors, estimated that there are about 100,000 cerebral palsied individuals throughout the Philippine archipelago. This estimate is based on the study made in the United States in which one cerebral palsied child is found for every 200 births. This may be star gazing estimate for the condition in the United States is different from the locale of the Philippines, but on the other hand, this might be a close guess because in the United States due to advanced medical science, preventive measures, excellent medical care, and well informed public the people will have better chances of good diagnosis, medical care, and therefore, reliable prognosis in comparison with the prevalent Philippine conditions. It is very hard to think that our present conditions will lend more to propitious treatment than the well advanced medical science in the United States.

#### Misconceptions Regarding the C.P.

More often than not, cerebral palsied children are looked upon as queer and mentally deficient because of their physical appearance and incoordinated motor gaits. This misconception is aggravated by their inability to express themselves or make appropriate responses to common place stimuli. Recent studies, however, showed that of the 992 cerebral palsied given mental tests, 49 per cent ranges below 70; 22.5 per cent between 80 and 89; 21.9 per cent between 90 and 109, and 6.6 per cent at 110 or above.<sup>4</sup>

#### Characteristics of Children with Cerebral Palsy

There are many kinds and degrees of motor disabilities found among cerebral palsied. Oftentimes, concomitant disabilities may be of much greater consequence to learning than are the motor impairments. Other disabilities may include speech deficiencies, mental deficiencies, visual impairments, aural disabilities, and emotional adjustments. Most often cerebral palsied children have two or more associated disabilities. When this is present, the cerebral palsied individual is described as having multiple handicaps.

The large majority of the cerebral palsied children have severe motor disabilities. In many schools for the crippled children in the United States, almost one half of them are celebral palsied. Many of them are non-ambulatory, so awkward, slow, and clumsy in their movements so that they could hardly participate with the non-handicapped children in their activities without suffering from a feeling of inferiority or inadequacy. However, due to systematic therapy and the coordinated efforts of the team of specialists working for the rehabilitation of the cerebral palsied child, it is not unusual to find some C.P.'s among the non-handicapped children in the classrooms and in the playgrounds.

Aside from the motor disabilities common among the cerebral palsied children, is speech disability. It is estimated that about 75 to 80 per cent of the cerebral palsied children have speech disabilities. There are several factors that attribute to the delay and/or speech disabilities of the cerebral palsied children. They are: (a) muscular disabilities which often involved the organs of speech; (b) lack of stimulating experience that results from restricted movement and too much dependence on others; (c) mental retardation that is often associated with cerebral palsy; (d) hearing disability that is prevalent among cerebral palsied children which makes the acquisition of language very hard; (e) distractibility and dissociated behavior; (f) lack of personal-social adjustment; and (g) parents and/or guardians that over or underpamper the cerebral palsied children thus denying them wholesome growth and development.

### Educational Provisions for the Cerebral Palsied Children

Since the effects of cerebral palsy is widespread and usually involve the associated areas of speech, auditory, vision, and mentality, there is no one type of school program that will meet the needs of all children with cerebral palsy. Children with cerebral palsy may be divided into two groups or classifications: (a) those who have mild muscular disabilities and are capable of participating relatively freely in the activities of the non-handicapped children; (b) those who have severe muscular disabilities who need special equipment and classroom. In order to serve the best interest of the cerebral palsied children, the school should provide special devices, special techniques of teaching, various and well graded instructional materials, special equipment, and well-considered curriculum suited to the individual needs, interest, capabilities, and disabilities.

The United Cerebral Palsy Associations of New York City, proposed educational programs for cerebral palsied children which may be adaptable to Philippine conditions:

- 1. For children who can participate reasonably well in the school activities of non-crippled children:
  - a. Regular elementary and secondary school

classes whose teachers are willing to accept and provide for children with minor disabilities. Some of these children will need continued physical, occupational, and speech therapy. This often presents a problem of scheduling and demands considerable planning between the teachers and therapists. At the secondary school level many of the children are only mildly handicapped, and their regular class teachers, should have access to guidance facilities that include a specialist who is prepared to counsel handicapped youth. A part of the school's responsibilities toward these children must involve realistic occupational planning.

- b. Special classes and services of various kinds for mildly involved cerebral palsied children whose primary disabilities are in the areas of mental retardation, and visual hearing defects. These include classes for educable mentally retarded children, for trainable children, and the blind, and the deaf. They also include either special classes or special services maintained for partially seeing and hard of hearing children. The absorption of mildly involved cerebral palsied children into these special classes must again depend upon the understanding and adaptability of the special class teachers. It will also depend upon the class size and the diversity of problems represented in the class, as well as the availability of therapy services for the cerebral palsied children who need them.
- c. Residential schools for those who are severely mentally deficient and for the blind and deaf if local classes are not maintained. This poses one of the most important problems in residential school planning.
- 2. For children whose incoordinations and restricted movement require either temporary or permanent placement in especially adapted classrooms.
- a. Special classes or schools for children with crippling disabilities. Ordinarily cerebral palsied children with many types of crippling disabilities, and the classes need not be restricted to the cerebral palsied.
- b. Special classes for cerebral palsied children who are mentally retarded and otherwise psychologically handicapped. These classes should be restricted to no more than ten or twelve children according to the variety of handicapping conditions represented in the class. Large cities may provide differentiated classes for mentally retarded and otherwise psychologically handicapped crippled children. Smaller communities, because of the limited number of children available, may need to group children with various intellectual disabilities together. If this is necessary the size of the class should be rigidly restricted to permit much individualized instruction. It is probable that wherever there are enough children to justify three classes for crippled children, one group should be composed of children with psychological dis-

abilities.

- c. Helping teachers for children with partial vision or who are hard of hearing and who are placed in special classes for crippled children.
- d. Teachers of the home-bound who serve children who cannot be accommodated in the adapted facilities found in classes for crippled children or who are in accessible to special classes. In using teachers of the home-bound, it should be recognized that home instruction is a poor substitute for group instruction in a classroom. Teachers of the home-bound should be employed only in case of absolute necessity.
- e. Residential schools for children who are severely crippled and mentally deficient; deaf or blind.

#### Nursery Experiences

Early childhood experiences serve as basic apperceptions to learning and wholesome adjustments, but the cerebral palsied children are deprived of these meaningful and stimulating experiences that play vital role in the development of readiness for all round learning. Their severe muscular disabilities and, in many instances, their parents' reluctance to expose them to normal milieu of the home and the public restrict their experiences very much. Because of this, psychologists have recommended early group experiences for the cerebral palsied children. The nursery school or class can provide socializing experiences, stimulating and meaningful experiences, and very wholesome care and guidance by those whose job is to help guide the handicapped children now to help themselves in the future. Furthermore, the nursery school experiences may serve as trial period for personal and social adjustments. Observations in the hursery school may also serve as the basis for future guidance and teaching of each cerebral palsied children.

#### Providing for Parent Education

The success of the school program depends upon the close cooperation and harmonious relation of the school and the home. This is even more important as it relates to the children with cerebral palsy than it is in regard to the normal children. The parents have the right to know about the curriculums of their children, their needs and problems, their progress in their studies, and personal-social adjustments. Likewise, the members of the school and ancillary staff should be well informed of the attitudes of the parents toward their handicapped children and how they are assisting them towards their education, rehabilitation, and adjustments.

In many schools for the cerebral palsied children, parents are given active part in the educational program. They attend conferences with the teachers to discuss problems besetting the school in regards to the education and rehabilitation of their cerebral palsied children. In some cases, parents are given lectures and demonstrations by the special class teach-

ers and the auxillary staff of the school so that they can effectively synchronize their home teaching and

guidance activities with the school program. At present there is a new building that houses the modern clinic for the cerebral palsied children

at the National Orthopedic Hospital compound at

Mandaluyong, Rizal. This building was recently built by the Elk's Club, a civic-spirited society, composed of professional men whose hearts are dedicated to the amelioration and future happiness of thousands

of unfortunate children — The Cerebral Palsied Chil-

dren.