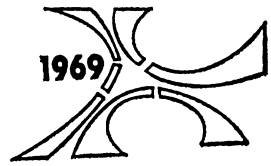
First Results of Early Speech Readiness Program in Cleft Palate Children



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The Cleft Palate Center in Pisa initiated its multidisciplinary rehabilitation program three years ago. The program includes surgical and orthodontic treatment, speech therapy, and psychological counseling. Owing to the particular operating conditions in Italy, it has not been an easy task. In particular, speech therapy, as a specialty profession, has grown up among major difficulties. There is an extreme shortage of qualified therapists. At the present time, speech therapy is only partially available in a few institutions, which tend to be for the profoundly deaf or for the mentally retarded. For the cleft palate child who is neither deaf nor mentally retarded or who is geographically isolated from such specialized centers, it is practically impossible to obtain this essential help. It is in this frame of reference that the present experience is reported.

In order to provide all cleft palate children referred to the Cleft Palate Center in Pisa with the maximum of speech rehabilitation before entering first grade (thus enabling them to face the extreme competition now present in Italian schools), it was necessary to develop a special group therapy program for young preschool cleft palate children. The development of the speech readiness program was based on current philosophies which stressed the importance of early speech therapy in cleft palate children (*1, 2, 6, 7, 8, 13, 15*).

There were two main purposes of the speech readiness program: a) basic speech therapy oriented towards the development of motor skills and of normal articulatory patterns of the mouth, lips, and tongue, and b) psychotherapeutical support for the child during his first attempts at socialization as well as for the whole family nucleus. Special emphasis was placed upon helping the parents understand and accept the special difficulties their child would experience.

Children are able to attend the speech readiness group from 2½ years of age since the average age for surgical repair in our Center is 2 months for the lip and 20 months for the palate. They meet together one hour

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each week and play as if they were in a kindergarten class. For example, they learn to take turns in simple games, ask for the animals in the "zoo" or for doll-house furniture, talk with puppets, and so on. The games are occasionally focused on sucking and blowing or on lips and tongue-tip play before the mirror. When the correct articulation of a phoneme spontaneously occurs, it is noted and encouraged. In addition, valuable information is gathered in the group situation about each child's speech development and individual difficulties. In the meantime, counseling is given to the mothers in both group and individual sessions. The mothers are informed about general topics in speech development and are instructed as to how to help their child; they are also informed as to what can be expected from him now as well as in the future. Before entering school each child may attend, if necessary, a short period of individual therapy for the correction of specific speech errors.

In three years, 20 children have come to this speech readiness program. The majority of them (12 cases) had complete unilateral cleft lip and palate; two of the remaining cases had complete bilateral cleft lip and palate while 6 cases demonstrate cleft palate alone. The mean age for starting treatment was 3 yrs, 2 mos. The eldest of the group is now 7 years old. Four of these children have entered normal school and do not appear to need speech therapy any longer. Four other children are attending individual speech therapy before school, since although they have quite intelligible speech they need to practice certain phonemes and consonant blends. Eight of the others are still in the speech readiness group. Four children, all with isolated cleft palate and associated malformations (microtia, syndactilia, hypertelorism) were found mentally retarded from the very first assessment. They left the speech treatment after a trial period as they could not fit into the group. In our experience, we found that the speech readiness program is profitable mainly to children of average normal intelligence, even when every child who needs it is, in principle, included in the groups. For the assessment of nonspeaking children at early ages the nonverbal scale by Borel Maisonny (*4*) was found to be of major help and good predictive value. Retesting performed at school age using the Wechsler Intelligence Scale for Children always confirmed the first evaluations in terms of general intellectual functioning.

Results

The first results after three years of activity may be summarized as follows.

Speech Development. The abnormal patterns of speech sounds observed in young children with a well repaired lip and palate may be explained by the persistence of abnormal motor patterns of the oral articulators learned before the operation (*5, 8, 15*). It is important to correct as early as possible the cleft palate child's deviating motor patterns and to

introduce normal ones in order to insure good speech production. Faulty habits such as talking with the mouth constantly wide open, glottal stops, and shaping and placing the tongue difficulties are easily prevented or reduced through early mastering of the motor skills involved in the normal articulatory patterns of the initial stages of speech development. In the speech therapy group, the cleft palate child spontaneously improves this production of correctly articulated phonemes and becomes conscious much earlier of word articulation in syllables. Thus, his speech increases in intelligibility even if articulation, from a diagnostic point of view, is still poor.

Language Development. Usually the young cleft palate child cannot make himself understood by means of words and his first attempts at speech do not elicit adequate rewards. Thus, it is logical to expect that he will not participate in verbal behavior thus delaying the development of communication skills. From three to five years of age, children talk much for their own satisfaction in hearing themselves speak while they imitate and rehearse newly learned verbal symbols. It is Piaget's stage of egocentric language (*10*), which, according to Vigotskji (*14*), may be considered a transitional stage of thinking aloud leading to verbal thought. If a child talks little or not at all he will have less opportunity to practice with his voice and to monitor with his ear the effect of new words and sentences. Thus language development can be impaired or delayed in comparison to that of the child who talks freely. General reduction of expressive language and communication skills (*9*), retarded development of "creative thinking" (*12*), and depressed psycholinguistic abilities (*13*) have all been observed in groups of cleft palate children. Among the many variables that may contribute to such a developmental lag in language, certainly the frustrating experience of self expression in early years should not be overlooked. In the speech group, the young cleft palate child meets with similarly handicapped peers and with accepting and helping adults. In this nonthreatening environment he easily develops higher motivation towards the use of verbal communication. Since intelligibility improves at the same time, talking becomes a wonderful experience which is increasingly accepted and rewarded from parents, siblings and friends.

Personality Development. The psychotherapeutical approach to the cleft palate child and to his family parallels the speech rehabilitation program. From clinical observations, it is possible to observe, even in a three-year-old child, the reactions to frustration because of his speech limitations. Often such reactions result in aggressiveness and/or withdrawal from any performance, even those not dealing with speech. Belonging to a group, having friends and teachers of his own seems to have a fundamental psychotherapeutical effect on the cleft palate child. Aggressiveness and withdrawal, symptoms quite clear in some children at the beginning of the treatment, disappeared after the initial sessions of group therapy and never appeared again. Moreover, as parental acceptance of the child is

directly associated with the personality development of the child, it is of the greatest importance to assist as early as possible the family, especially the mother. This helps to develop the family's understanding and acceptance of the child's handicap and to provide an atmosphere which will encourage healthy child-parent relationships (*2, 3, 11*). In our clinic, parent counseling usually begins at the time of the child's birth or on the occasion of his first referral for surgery. However, it is only when mothers come regularly to the clinic, as during the speech readiness program, that the psychotherapeutical approach is most fruitful and rewarding.

School Achievement. The main goal of the rehabilitation program is to enable the cleft palate child to enter first grade at the appropriate age with intelligible speech and an alert mind. Physical maturation as well as the development of reading and writing skills will elicit further improvement in prosodical features and voice quality of children with good articulatory proficiency. The teacher's report in school is therefore considered a good evaluation of the rehabilitation program effectiveness. Of the 4 children from our program who are now enrolled in school, all have received excellent reports from their teachers. Evidently, they have been able to communicate without difficulty and are currently demonstrating good academic performance. Perhaps most significant, however, is the finding that these children are completely accepted by their peer groups as well as adult personnel and are functioning as normal children in a normal classroom.

This report represents our initial experience in the establishment of a global approach to the rehabilitation of children with cleft palate malformations. Our preliminary findings, which, of course, need further verification, suggest that early treatment and management are extremely effective in helping cleft palate children overcome their initial disabilities so that their overall potentialities can be realized.

Summary

A speech readiness program for surgically repaired cleft palate children from 2½ years of age has been developed at Pisa Cleft Palate Center in Italy. Its primary goals are: a) to develop and practice normal patterns of articulation through play activity, and b) to facilitate socialization and motivate language usage by means of group therapy sessions. After three years of activity, the first results are briefly discussed. It is apparent that the program reduces the need for individual speech therapy and promotes normal personality adjustment in cleft palate children before school age.

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