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COMPREHENSIVE EVALUATIVE TECHNIQUES FOR THE CHILD WITH A
CLEFT PALATE.

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FLORIDA CLEFT PALATE CLINIC

A MULTIDISCIPLINARY APPROACH TO CHILDREN WITH CLEFT
PALATES IS DESCRIBED. THE SOUTH FLORIDA CLEFT PALATE CLINIC,
REPRESENTING NINE PROFESSIONAL SPECIALTIES, MEETS WEEKLY TO
SEE SIX OR SEVEN CASES. SPEECH PERFORMANCE IS RECORDED ON SIX
DIAGNOSTIC, DATA COLLECTING FORMS WHICH PROVIDE A BASIS FOR
RECORDING CLINICAL JUDGMENTS. PROGNOSIS AND RECOMMENDATIONS
ARE MADE. THE SPEECH DEVELOPMENT SEQUENCE POSTULATED BY DR.
KENNETH BZUCH IS USED AS THE MODEL FOR EVALUATION OF CLEFT -
PALATE SPEECH AT THE CLINIC. THIS PAPER WAS PRESENTED TO THE
FLORIDA COUNCIL FOR EXCEPTIONAL CHILDREN (JANUARY 20, 1967).
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COMPREHENSIVE EVALUATIVE TECHNIQUES FOR THE CHILD WITH A CLEFT PALATE:

PAPER PRESENTED TO FLORIDA COUNCIL FOR EXCEPTIONAL CHILDREN

JANUARY 20, 1967

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COMPREHENSIVE EVALUATIVE TECHNIQUES FOR THE CHILD WITH A CLEFT PALATE:

PAPER PRESENTED TO FLORIDA C. E. C., JANUARY 20, 1967

The South Florida Cleft Palate Clinic began as a diagnostic team in 1951. At that time, a group of dentists and one plastic surgeon met in their various offices to discuss mutual problems they had faced with cleft palate children in their private practices. As in all cases where sharing of knowledge begins, it was soon evident that there were still many areas of concern which were unattended. The Florida Crippled Children's Commission was involved in the program, the group moved to Variety Children's Hospital of Miami and added speech pathologists to the staff. One evening a month they saw patients, staffed them, made the diagnoses, talked with the parents, made recommendations for treatment and recognized the need for far greater service to the community.

During the next seven years, additional members were added to each specialty, and the Cleft Palate Clinic met one evening every other week. Quarters were cramped, diagnostic tools were limited, the clinic was overrun with cases, and after several years of this we realized we were asking the same questions year after year. Unfortunately, far too many of the questions had no answers based in fact.

When the United States Congress voted to make federal monies available for research projects at the local and state level, the Cleft Palate Clinic applied to the National Institutes of Dental Research for a planning grant. Receipt of this grant turned the South Florida Cleft Palate Clinic into a two-pronged operation. The clinic's service to the community remained the same; that of making diagnostic recommendations to cleft lip and palate cases. This case

load became the population for the research project as instituted by the N. I. D. R., and formed a second level of operation for the team.

The large amount of applicable data for any one cleft palate case led the team to consider how their observations could be recorded in a manner readily transferable to data processing techniques. If this could be done, it was felt, analysis of this data would be facilitated, and better diagnostic recommendations would accrue.

Because of the planning grant and a subsequent research grant, the Cleft Palate Clinic now meets at Variety Children's Hospital every Tuesday morning with a greatly expanded program and facilities. Six or seven cases are scheduled each week; approximately 250 are seen each year. In the South Florida area, we have a population of cleft palate cases of 630 as of this writing. The caseload is being increased at the rate of two to three per month.

At present, there are nine specialties represented on the professional staff. Each child is seen by a pediatrician, a plastic surgeon, an otolaryngologist, an audiologist, an orthodontist, a prosthodontist, a psychologist, a speech pathologist, and a social worker. Each specialty operates in its own room, undisturbed by the distractions of other children or professionals. Each specialist examines the child and fills out all of the diagnostic forms in his area. These forms are the result of the first two years of research work by the South Florida Cleft Palate Team. In addition to work-ups by the specialties mentioned above, routine cephalometrics, mouth casts, urinalyses, photographs, and cinefluorographic studies are made on each patient.

Publication of the data collecting forms is anticipated for each service within one year of this writing. The reader is advised to pay careful attention to professional publications in his area of interest for further information.

Since the authors have special interest in the speech evaluations of cleft palate children, a more comprehensive discussion of this area follows.

The task of developing comprehensive research tools has led us to new insights in the data gathering process. Early forms we developed had gaping holes when applied to real cases, and we found it difficult to develop computer check lists which would apply to all cases presented. The presence of competent professional personnel in other areas led to the elimination of much information we had acquired when working independently. The availability of new research techniques led to inclusion of several areas new to all members of the staff.

Five separate forms have been developed at the South Florida Cleft Palate Clinic to record various aspects of speech performance on each case. A sixth form has been adapted from the Bzoch Diagnostic Articulation Test, Form I (1964) to record data obtained from a picture articulation test. The presence or absence of a given condition and/or the degree of involvement observed is indicated by a check mark in the appropriate space. No clinical observations are ever written out on these forms, so that electronic computer tapes may be readily prepared from each form.

The Early Language and Speech Evaluation Form is used if there is insufficient verbal ability to perform a standard picture articulation test. It is primarily used to assess free speech activities and development, and of course applies to the older child with delayed speech. Because other services available in

our clinic affect many areas of general development, our form concentrates entirely upon the development of speech and language activities. Since an integral part of almost all examinations of young cleft palate children is a talk with the parents about speech development, a section has been included in this form to check areas discussed.

If the child has progressed to the point where speech is present, then the Speech History Form is completed. Two main areas are considered in this second form; the history of the speech problem and the history of speech therapy. In questioning the informants about the speech problem, we are interested in the type of problem, the age first noticed, and the relationship of the child's speech to events in his life such as accidents and surgery. The section dealing with speech therapy history is routine.

To accurately assess the articulation of cleft palate children, we have modified a test designed by Dr. Kenneth Bzoch of the University of Florida. Once again, the recording blank is so designed that responses from this 100-item test can be indicated by check marks only. In the opinion of the clinic staff, Dr. Bzoch has developed an important concept in degree of seriousness of articulatory error. He postulates that nasal emission of air and sound on an otherwise correctly produced phoneme constitutes the most minor articulation error for the cleft palate child. If the articulators are correctly placed, then palatal closure is the only addition necessary for correct speech. If the sound is produced indistinctly but still within the identifiable confines of the phoneme, this is considered as the second degree of articulatory difficulty. A clear-cut substitution constitutes the

third level of difficulty. The fourth level, the substitution of a palatal fricative or a glottal stop, is regarded as more serious, since the sounds substituted are not normally contained in the English language. Dr. Bzoch regards the omission of the sound as the most serious error possible, since the subject fails to recognize the need for any phoneme at that point. It is hoped that publication is forthcoming in the near future about this articulation testing concept, since our observations confirm that an individual makes improvement by moving through the progression of steps Dr. Bzoch has suggested.

Clinical observations and judgments are recorded on the Speech Evaluation Form. This is a series of ratings of various aspects of a patient's speech. The connected speech is evaluated by comparing the articulation errors made in spontaneous conversation to the results of the articulation test. Clinical judgments of suspected causes of the immediate difficulty are noted. A clinical evaluation of language development is made. The amount of nasal emission of air is evaluated, and compensations such as constriction of the nares are recorded. The vowel quality of the subject's speech is evaluated (the articulation test deals primarily with consonants and semivowels). Any dialectal pattern is noted and recorded. At this point a prognosis is made, based upon observations and tests conducted so far. It should be noted that this prognosis is a speech prognosis only; it is subject to revision when data gathered by other services is studied. If the prognosis of any one service differs from predictions by other services, recommendations for the case are withheld until a careful staffing is performed. Finally, speech therapy recommendations are made. All recommendations are subject to review by the entire clinic staff, since welfare of the individual case is our primary concern. Every effort is made to confirm or deny clinical impressions with available instrumen-

tation. At present, five approaches are followed. Extensive research has been conducted in the South Florida Cleft Palate Clinic with the Voice Systems Nasality Meter, an electronic device which measures phase shift present when sounds are nasally resonated. Immediate publication of research findings is contemplated. In addition, we have been privileged to have a complete radiological department at our disposal, including cinefluorographic video tape equipment. Use of this equipment has confirmed that palatal closure is frequently difficult if not impossible to evaluate aurally, and further documentation and publication is anticipated in this regard. In addition, the clinic uses an oral manometer with a bleed valve, and our observations of this instrument confirm published research findings. Mirror fogging is routinely performed to check nasal emission of air, and a high quality tape recording is made of each case at each visit.

We believe this approach offers an excellent basis for recording and substantiating clinical judgments. It also presents exciting potentials for extensive research on the cleft palate population. Admittedly, the material developed here is an outgrowth of the needs of our particular professional structure; others will find adaptation necessary and desirable. Much of the groundwork has been done; many of our early mistakes need not be repeated. Hopefully, our efforts will serve as a basis for development of a standardized methodology when dealing with the cleft palate patient.