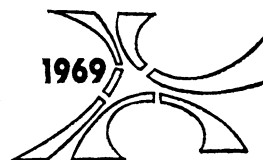


Psychological Studies in Patients with Clefts



WOLFRAM SCHWECKENDIEK, M.D.
CLAUS DANZER

Marburg, West Germany

The effect of clefts on mental and social behavior has hitherto undergone little systematic study. In the surgical-medical literature we only occasionally find statements which pertain to the character peculiarities of these patients (1, 2, 3). The statement that mental disorders may develop if treatment is deferred is also occasionally used as justification for performing premature corrections. With more critical definition of the indication, and taking into consideration the growth conditions, deferring surgical correction to a more favorable time could lead to expectation of a better result. In phoniatic and pedagogic reports, one finds references to the psychological problems of individuals with clefts somewhat more frequently, but even here serial studies are seldom available (5-8).

We have carried out studies on mental deficiencies and social behavior disorders on 200 children of school age with clefts (lip, maxillary, and palate clefts, 129; cleft palate, 71) (Figure 1). Questionnaires provided to the parents and teachers as well as personal follow-up examinations were used. We limited ourselves to children of school age in order to exclude peculiarities which are due to puberty.

It was to be expected that in patients with lip, maxillary, and palate clefts one could mainly expect disorders produced by the noticeable appearance, particularly if the functional and cosmetic result was unsatisfactory. However, in patients with cleft palates (with or without lip and maxillary involvement), probably the development of speech was of decisive importance for social behavior.

The children were born from 1953 to 1960 and numerically they are distributed equally over the stated period of time. According to statements by the parents, development in general was normal, the height and weight corresponded to the usual variation range. Only 5% of the children were retarded as far as their total development was concerned;

Dr. Schweckendiek is Chief Surgeon and Mr. Danzer is Medical Assistant, the Klinik Dr. Schweckendiek, Marburg.

This paper was presented at the 1969 International Congress on Cleft Palate, Houston.

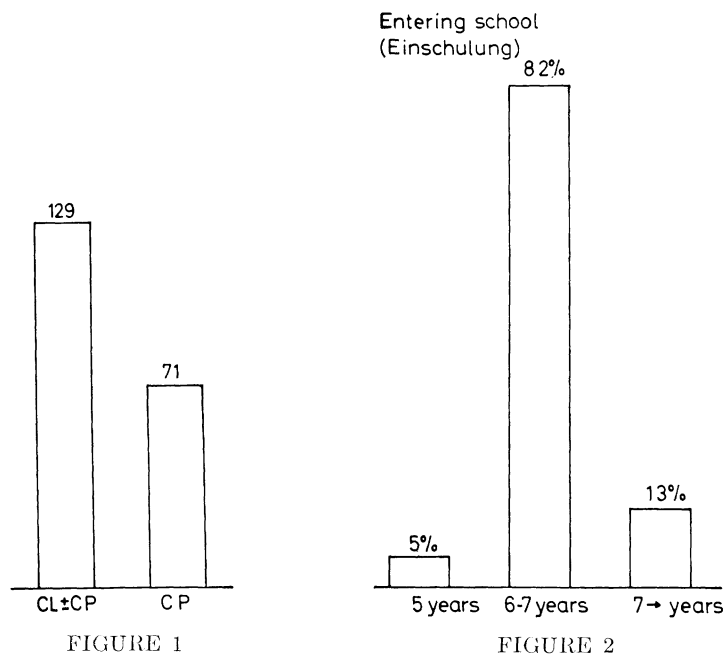


FIGURE 1. Distribution of 200 children of school age in the groups of cleft lip and/or palate (CL \pm CP) and of cleft palate (CP).

FIGURE 2. Age of entering school in 200 patients with clefts.

approximately 15% were late in learning to speak. Of the patients with lip, maxillary, and palate clefts, approximately one-third of all children felt that they were hindered by their appearance. One-third of the patients with cleft palates had a subjective speech impediment.

As shown in Figure 2, 5% of all children entered school prematurely; 81% entered school at age 6 to 7, similar to healthy children of equal age; and 11% of the children were late in entering school. Subsequent follow-up examinations showed a larger percentage of minimally gifted children (52%) in the children who entered school late. For evaluation, it was possible to use 200 of the questionnaires answered by the parents and 145 of the questionnaires answered by the teachers. The teachers state that the IQ of 12.4% of the children is above average; of 65.5%, average; of 17.2%, low; and of 2.8%, very low (Figure 3). Statements are missing for 2.1% of the cases. Of all the children, 74.5% attended regular public schools, 16.5% attended trade schools or high schools, and 9% attended schools such as for retarded children. If one considers only the age group from 10 to 15 years, which includes a total of 96 children, then 33% of these children attended higher educational facilities (that is, 34.5% of the children which could be considered). This is a value which corresponds to the mean of all higher educational facilities in the metro-

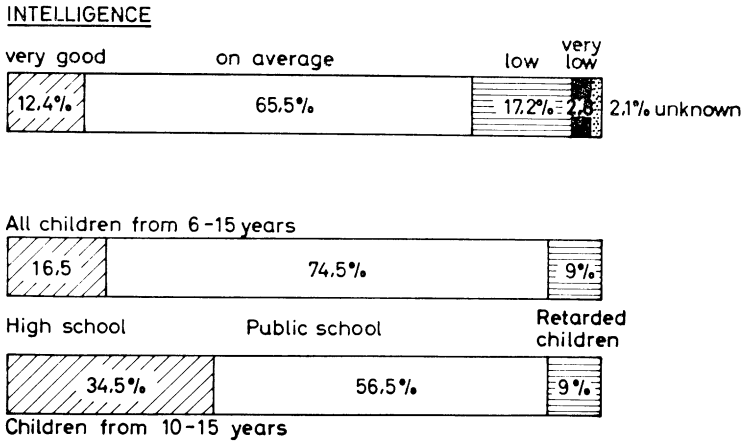


FIGURE 3. Intelligence in 200 patients with clefts. Top, judgment of intelligence by the teachers. Center, distribution of several school types for 200 examined children. Bottom, distribution of school type for only the children aged from 10 to 15 years.

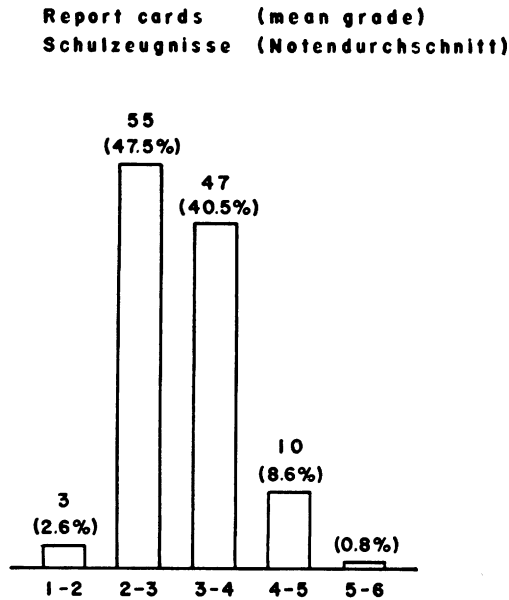


FIGURE 4. Report cards (mean grade) of 200 children with clefts at school.

politan area of Düsseldorf. This must be regarded as an especially favorable sign since our patients come mainly from rural areas.

We were able to inspect the report cards of 116 children and from this we obtained the scholastic achievements in individual subjects. According to this, three children (2.6%) achieved a mean grade of 1 to 2, 55 children (47.5%) achieved a mean grade of 2 to 3, 47 children (40.5%)

achieved a mean grade of 3 to 4, 10 children (8.6%) achieved a mean grade of 4 to 5, and 1 child (0.8%) achieved a mean grade of 5 to 6 (Figure 4).

In our patient material, we could not determine a difference between the individual cleft type with reference to intelligence, school type, and school reports. Comparison with a Hamburg statistic of normal schools shows that children with clefts definitely reach the normal level of achievement.

In this study, special emphasis was placed on social adaptation of our patients to school and family. During the family survey, it is remarkable that only 10% of the children (20 of 200) are only children. Seventy-five (37.5%) have one sibling; 23.5%, two; 15.5%, three; and 13.5%, more than three siblings (Figure 5). This probably corresponds to the normal family size of a mean of our population. In towns with more than 5,000 inhabitants, 56.3% attended kindergarten; in smaller towns with less than 5,000 inhabitants, 26.8% of all children attended kindergarten. However, 63% of our children came from towns with fewer than 5,000 inhabitants, and only 37% came from towns with more than 5,000 inhabitants (Figure 6).

Thirteen per cent of the children with clefts were particularly spoiled by their family; only one child was completely rejected by the family; and 12% of our patients had a dominant position among their siblings. According to statements by the parents, five per cent were querulous children. Whereas, according to statements by the parents, 19.3% of

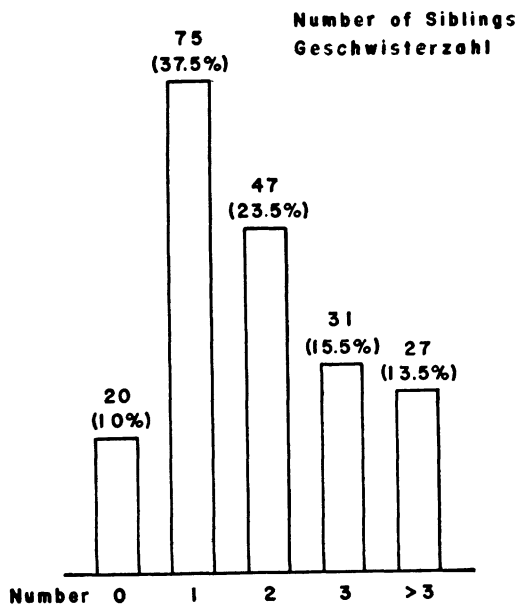


FIGURE 5. Number of siblings in 200 children with clefts.

KINDERGARTEN

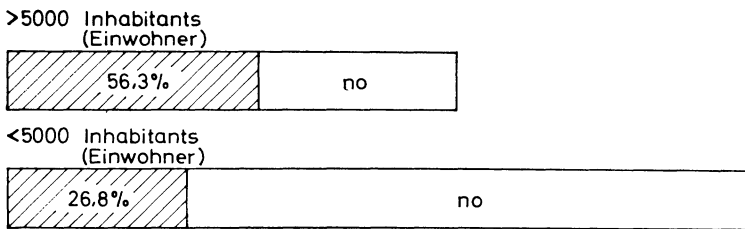


FIGURE 6. Attendance at kindergarten before entering school of 200 examined children in relation to the number of inhabitants in their towns.

<i>family</i>		<i>school</i>	
spoiled	13%	position good	74.5%
rejected	0.5%	position negative	8.9%
dominant position	12%	alone	21%
querulous	5%	social contact	77%
alone	19.3%	contact poor	10.6%
social contact	80.7%	inability for con-	25%
contact poor	9.4%	centration	
difficulties in learn-	30%	difficulties in learn-	30%
ing		ing	

FIGURE 7. Social adaptation of 200 children with clefts to family and school.

the children liked to play alone (statements by the teachers: 7.7%), 80.7% were looking for social contacts. Approximately 20% of all children have temper tantrums (parents: 23.5%; teachers: 18.3%) (Figure 7).

In school, the attitude of the children to their class is stated to be average to very good in 74.5%; 8.9% took a negative attitude and statements are missing about 16.6%. The ability to adapt to participation in the teaching program and contact to the teachers is stated to be good in 77% of the children. Twenty-one per cent of the children are regarded as contact-poor; for 2% of the children the respective statements are absent. Twenty-five per cent of the children show an inability to concentrate in school, and almost 30% have learning difficulties according to the statements by the parents as well as statements by the teachers. The parents state that 9.4% of the children were particularly contact-poor, whereas the teachers stated that 10.6% of the children were particularly contact-poor.

The question of whether the children are teased or derided on account of their appearance or on account of the imperfect speech is answered very differently by the parents and by the teachers. The parents state that appearance is to blame in 20% and that speech is to blame in 22.3%. The respective answers by the teachers are 4.3% and 2% (Figure

<u>Troubles of clefts</u>		
	Parents	Teachers
Blaming from Appearance	20%	4.3%
Blaming from Speech - Troubles	22%	2%
Good Intelligibility of Speech		
Single words	75%	38%
consecutive Speech	68%	38%

FIGURE 8. Subjective troubles regarding clefts of 200 children, in the judgment of parents and teachers.

8). In this context, the parents obviously have closer contacts with their children who, at home, confide in their parents, whereas in the public of the school these feelings are suppressed by the affected children. The understandability of the speech of patients was 75% for single words and 67% for conversation. For single words as well as for conversation the teachers feel that only 38% of all patients with cleft palates are readily understandable. Obviously in this context familiarity of the environment with the imperfect speech habits of the children plays a large role.

In summary we can state that only approximately 20% of all children with lip, maxillary, and palate clefts, and with cleft palates only, show behavior disorders or a remarkable social adaption to school and family. By far the large majority of our patients hold a position in relation to their human environment which corresponds to the normal mean. These results, which are only reported as a summary, are presented in detail elsewhere (4).

By annual re-examinations, we try to maintain contact with the patients who were treated surgically by us. During this, in addition to possible necessary surgical measures, the problems of phoniatric, dental, and maxillary-orthopedic treatment are discussed. For those children who show psychological and social problems a specific task is, in cooperation with the parents, teachers, child psychiatrists and social workers, to solve these problems in order to make possible complete rehabilitation for these children also.

Summary

In 200 pupils with clefts, ranging in age from 7 to 14 years, studies of mental behavior at home and in school were carried out. The results were obtained by providing questionnaires to the parents and teachers. Follow-up examinations could be carried out on 120 children. Thirty-two of the 128 children (25%) with uni- and bilateral lip, maxillary, and palate clefts felt that they were restricted on account of their appearance. Forty-seven children (28.2%) of the 166 lip, maxillary, and palate clefts

had speech impediments. The IQ of 20% of the children was stated to be low; of 67%, average; and of 13%, above average. This was confirmed by the report cards; 11 children attended schools for retarded children, 154 attended public schools, and 35 attended higher educational facilities. Of the group, 72.5% entered school at the correct time; the others usually were put back one year. Additional questions concern the social behavior in family and school and general development.

reprints: *Dr. med. Wolfram Schweckendiek*
Klinik Dr. Schweckendiek
355 Marburg/Lahn
Blitzweg 1
Marburg, West Germany

References

1. BERNDORFER, A., Die seelische und logopädische Rehabilitation der Kinder mit Lippen-Kiefer-Gaumenspalten. *Prax. Kinderpsychol.*, 16, 21-23, 1967.
2. ČERVENKA, J., and H. DRABKOVA, The intelligence quotient in cleft lip and palate. *Acta chir. Plasticae*, 7, 58-61, 1965.
3. CLIFFORD, E., Connotative meaning of concepts related to cleft lip and palate. *Cleft Palate J.*, 4, 165-173, 1967.
4. DANZER, C., Über Verhaltensauffälligkeiten bei Kindern mit Spaltbildungen. Unpublished dissertation, Marburg/Lahn, 1969.
5. SHIP, A. G., S. COLTON, and A. SHAPIRO, Function and emotion in cleft palate speech. *Eye, Ear, Nose, Throat*, 46, 196-200, 1967.
6. SMITH, R. M., and BETTY J. MCWILLIAMS, Psycholinguistic considerations in the management of children with cleft palate. *J. speech hearing Dis.*, 33, 26-33, 1968.
7. PRIESTERSBACH, D. C., and DOROTHY SHERMAN (eds.), *Cleft Palate and Communication*. New York: Academic Press, 1968.
8. WYLIE, H. L., and BETTY J. MCWILLIAMS, Guidance materials for parents of children with clefts. *Cleft Palate J.*, 2, 123-132, 1965.