FAMILY CONTRIBUTIONS IN PRE-SCHOOL TREATMENT OF THE HEARING-HANDICAPPED CHILD

An Analytical Survey of Children
in the Speech and Hearing Clinic, Health Centre
for Children, Vancouver General Hospital,
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ABSTRACT

That deafness is more than an organic handicap requiring training and education in special schools has been increasingly recognized in recent years. Modern approaches to care for the young deaf child stress the importance of (a) early diagnosis and (b) of pre-school auditory and speech training. It is also recognized (c) that the most influential forces in the emotional and social development of the child are his experiences in his own home during the first five or six years of his life. For these reasons, in newly-developed audiology centres and speech and hearing clinics throughout Britain, the United States, and Canada, social workers take part in a multi-professional team approach to meet the differential needs of individual children and parents.

The present study is developed from the operations of the Speech and Hearing Clinic of the Health Centre for Children at the Vancouver General Hospital. The case records selected for study relate to all hearing handicapped pre-school children known to the Clinic and born in 1954 or 1955. Two separate rating scales were developed to make an assessment of (a) the child's emotional and social adjustment and (b) of parental and family strengths. These are compared at the time of (1) initial evaluation, and (2) after a period of two years making it possible to examine the influences which may promote or inhibit the healthy development of the young deaf child and have a bearing on his response to treatment.

This is a first exploratory study of the areas significant for the social work contributions to the treatment process. Nevertheless there are sharp evidences of correlation between social environment, especially parent-child relationships and the emotional, social, and intellectual adjustment of the hearing-handicapped child. Effectiveness of treatment seems to depend to a considerable degree on parental attitudes and feelings toward the handicapped child. Parent education and guidance, and, if necessary the modification of parental attitudes is therefore an essential component in the overall treatment process.

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Chapter I.

THE BACKGROUND AND THE PROBLEM.

In recent years, an increasing interest in the training and education of the deaf child has led to a new awareness and understanding of the meaning of deafness. Too often in the past, deafness has been thought of solely as a physical defect. But the life of the deaf person - child or adult - is a search for adjustment. And adjustment must be interpreted as physical, emotional, intellectual and social. The failure to recognize the implications of deafness on the total personality, for long years resulted in the belief that the deaf person is mentally inferior to the hearing one. The frequent incidence of maladjustment was seen as stemming from physiological changes in the brain structure, and therefore as something not within reach of any known method of treatment. The "organic" or "traditional" view of the nature of deafness can be traced back to the time of Aristotle. Yet there are echoes of this again in a writer like Pinter, as late as 1919, who wrote: "The inferior mentality and the lack of hearing of the congenitally deaf, are probably due to some common cause, which is an inherited defect."[1]

In contrast to this widespread belief, gradually emerging "modern" views emphasized the importance of the environment on the overall development of the deaf child. Almost forty years ago,

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1. Pinter, R., and Osborn, D., "The Mentality of Families of the Congenitally Deaf", American Annals of the Deaf, 64:2, March, 1919, cited in Steven Getz, Environment and the Deaf Child, Charles C. Thomas, Springfield, Illinois, 1953, p. 6.

G. Neville, one of the few to see this clearly, cautioned that "we have to guard very strictly against the confusion which may result if we attribute to deafness itself certain mental characteristics which may be really due to conditions of life in the rearing and education of deaf children."[1] In 1940 R. Gibian, representing the same school of thought, wrote:

> "the age-old question of whether heredity or environment have a greater influence on a human being is still being debated, but more and more have we become convinced of the tremendous effect that environment and nurture exercise upon the child from the first moment it enters this world. Many qualities and peculiarities formerly ascribed to heredity forces, are now being recognized as imitative behaviour of those the child comes in close contact with during his formative years."[2]

The early advocates of the modern view regarded institutionalizing of the young deaf child as a prerequisite to successful training and education. Only admission to a residential school at two or three years of age would exclude the damaging influence of poor environmental conditions. E. Greenway, in 1947, declared, "My experience, which has been extensive, has shown that the ideal home for the deaf child is so rarely, if ever, found that a properly organized nursery is by far the better home for him."[3] The argument for early residential schooling was based on two assumptions, (a) the development of a better adjusted personality through early

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1. Neville, B., "Psychology of the Deaf Child", Volta Review, 23:8, August, 1921, p. 362, cited in Steven Getz, Environment and the Deaf Child, p. 8.

2. Gibian, R., "Report on Pupil's Background", American Annals of the Deaf, 85:4, September, 1940, p. 372, cited in Steven Getz, Environment and the Deaf Child, p. 8.

3. Greenway, E.S., "The Properly Organized Nursery is the better home for the Deaf Child", Volta Review, 49:3, March, 1947, p. 121.

training, and (b) the inability of parents to train the deaf child and to meet his emotional needs. What was not sufficiently examined was whether therewas any significant differential in the socio-economic strata from which these doubly-handicapped children come.

The recognition of pre-school training as promoting healthy personality growth was a sound approach, and followed in the wake of similar emphasis on the value of nursery and kindergarten schools, etc., for "normal" children. The young child's removal from his own home, however, was perceived by other experts as harmful to the development of good social and emotional behaviour patterns. Studies done by Bowlby, Spitz, Gesell, Anna Freud and Fritz Redl all stress the extreme importance of a continued child-parent relationship for the young child. Lack of identification with parent figures was seen as one of the disturbing consequences of too early institutionalizing, and thus could easily outweigh the benefits of early education.

On this subject A. Freud and D. Burlingham wrote:

> "If the grownups of the nursery remain as impersonal figures, or, if, as happens in some nurseries, they change so often that no permanent attachment is effected at all, institutional education will fail in an important respect. The children through the force of inner circumstances, will then show defects in their character development, their adaptation to society mayremain on a superficial level and their future may be exposed to the danger of all kinds of dissocial development."[1]

A. Gesell expressed the same opinion when he writes:

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1. Freud, Anna, and Burlingham, D., Infants without Families, International Universities Press, New York, 1944, p. 126.

> "The psychological dangers of institutionalization are ever present if the pre-school child is separated from his parents."[1]

A program of home training and attendance at a special day school or day nursery were suggested as alternatives to early residential schooling. For children from rural areas, early admission to a residential nursery school could, in many cases, not be avoided. Today's trend, nevertheless, is increasingly more toward supervised home training during the first five years of the deaf child's life. Audiology centres and hearing clinics have been established in most major cities throughout Britain and the North American continent, and these are now promoting early diagnosis and early treatment of auditory disorders. Parent education and guidance is clearly an important part of the total service provided. Periodic visits to the centre are arranged for parents and children; costs are met, if necessary, through funds made available by the community or by interested organizations. Travelling audiology units now serve some rural areas, administering audiometric tests to pre-school and school children. This periodic screening program makes possible early ascertainment of hearing loss and permits referral to a special clinic or centre, if one is available.

For children requiring special education at a school for the deaf from the age of five or six years on, separation from the families is frequently inevitable. These children visit their parents on week-ends or during vacation only. It is important to remember

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1. Gesell, Arnold, "Normal and Deaf Child in the Pre-School Years", Volta Review, 48:11, November, 1940, p. 635.

that they are segregated, not only from their families but from the hearing world, and they are learning to communicate primarily with other deaf children. The negative results of "Institutionalized living" are seen by some experts as showing up in a loss of initiative, self-reliance, and social competence, and in increased dependency. This view has been voiced strongly by F. Heider and G. Heider:

> "Usually he does not feel the full impact of his handicap until he has left the security of school and found himself living in a world in which most people hear and he does not. In school the social effects of his handicap, problems of adjustment, are less important because he lives in a situation that is tuned to his special needs."[1]

However, the geographical distance of a child's home from the school make his attendance on a residential basis almost imperative. To give these children the continuity of family life and the opportunity to mix with hearing children, foster home placement has been considered as the alternative to "living in".

Another area of considerable controversy concerns itself with the methods of teaching the deaf child. The question which of the two basic methods, the manual or the oral, should be utilized in education and training, has not yet been settled. The manual method, which until the middle of the nineteenth century was the only way of communication for the deaf person, depends on the use of signs. In "finger" spelling the fingers are arranged in different shapes to represent letters of the alphabet. In "signing" whole words can be expressed by the different positions of the hands. The

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1. Heider, Fritz, and Heider, Grace, "The Adjustment of the Adult Deaf", Volta Review, 45:6, June 1943, p. 325.

oral method, by contrast, teaches the deaf child to understand and to use speech by means of lip reading. What is important is that residual hearing, found to be present in the majority of deaf children, can be effectively stimulated if it is started early enough, and thus can be utilized in teaching speech. Out of the oral method has thus evolved the auditory method. The American Public Health Association defines auditory training as

> "a means of educating or re-educating the residual hearing to interpret (identify, understand) meaningfull auditory patterns. The child must learn to use any remnant of hearing he has, Amplification by group and individual aids assists this learning process and the child may also need to use other senses in forming and understanding of speech."[1]

The opponents in this "war of methods" were concerned primarily with the implications of one or the other method on the emotional, social and intellectual adjustment of the deaf child. The propagandists of the manual method acknowledge that a child trained in this way is restricted in his communication with other persons. They claim, however, that many deaf children do not develop a speech which is comprehensible to strangers and can be used effectively in every-day life. The deaf person, therefore, feels more comfortable in associating with other hearing handicapped people. If he is denied the use of sign language, he will be isolated not only from the hearing, but also from the deaf community. E.

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1. Committee on Child Health of the American Public Health Association, Services for Children with Hearing Impairment, The American Public Health Association, Inc., New York 19, N.Y., 1956.

Stevenson, in favour of the manual method, argues:

> "When properly used, signs prove a great asset in mental development, in social growth, in general happiness, in better and more wholesome discipline, and finally as a more normal later adjustment as an adult."[1]

The defenders of the oral method, on the other hand, underline the desirability and necessity of integrating the deaf person into a hearing society. The feeling of "belonging", derived from the ability to establish relationships by means of speech and language, is seen as essential to healthy personality growth. The president of the American Association to Promote the Teaching of Speech to the Deaf says in this regard:

> "The Association, founded in 1890 by Dr. Alexander Graham Bell, throughout the years since its establishment, has consistently and ceaselessly championed the philosophy that a deaf child will be a much more effective and happy citizen if he is able to interpret and use in every way the language of the country in which he lives."[2]

Over the years, a compromise has been reached and a number of schools for the deaf use a combined system of instruction. However, there are many, e.g. all special day classes and schools for the deaf in California, and most audiology centres throughout the country, which teach the oral method exclusively.

Causes of Infant Deafness

To explain the causes of infant deafness, two main

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1. Stevenson, E., "California's Policy of Educating the Deaf", American Annals of the Deaf, 81:3, May, 1936, p. 232, cited in Steven Getz, Environment and the Deaf Child, p. 59.

2. O'Connor, Clarence D., "How our Schools can solve some of Today's Problems", Volta Review, 50:9, September, 1948, p. 399.

classifications are used: (a) congenital deafness, and (b) acquired deafness:

(a) The term "congenital" merely implies that the condition was present at the timeof birth, and is not synonymous with "heredity". Congenital deafness can be due to heredity factors or - as frequently is the case - due to causes not inherent in the genes, but influencing them externally. Most common here is German Measles if contracted by the mother during the first tremester of pregnancy. Such a child may have a hearing loss, present at birth, but this is not hereditary.

(b) "Acquired" deafness means, as the term implies, that normal hearing was present at the time of birth and the condition was acquired at a later date. The two main causes are: - hemolytic disease of the newborn as a result of fetal-maternal blood factor incompatibility, and severe virus infection, particularly purulent meningitis, in infancy or early childhood. The hemolytic disease cases are largely preventable if exchange transfusion is performed immediately after birth, and some of the meningitis cases are preventable if an early diagnosis is made and rigorous therapy is instituted. Severe and prolonged infections of the middle ear, the suppurative otitis media, are among the most frequent causes of acquired hearing disability in childhood. Mechanical injuries such as birth injuries, or skull fracture are less frequent, but account for a certain proportion of cases. Otosclerosis, a condition affecting the middle ear, is extremely rare in children.

Types of Deafness

The two types of peripheral hearing loss are usually according to the site of the impairment. In "perceptive" or nerve deafness, the site of the impairment is the inner ear. Damage, degeneration or a lack of development of the sensory structures, the acoustic branch of the eighth cranial nerve or the hearing centre of the brain, is most commonly the result of maternal rubella during the first three months of pregnancy, or of meningitis, encephalitis or other infections affecting the inner ear. Frequently the hearing loss is greater for the higher frequencies than for low sounds. This results in "high-tone deafness", in which hearing is lost for the higher ranges of speech. Perceptive deafness is a more commoner form in the very young age group.

"Conductive" deafness is caused by damage, blockage, or infection involving the middle ear and blocking the passage of sounds from the outer to the inner ear. Apart from congenital malformation of the outer or middle ear, chronic otitis media with destruction of the ear drum brings about this type of hearing impairment. Since loudness of sound is primarily affected and the sensory structure of the inner ear remains intact, sound amplification provided by a hearing aid can be very helpful.

Classification of Impaired Hearing

The classification used in the present study follows the one described by the Committee on Child Health of the American Public Health Association. This classification system groups the children

according to the degree of hearing loss and characteristics of speech and language, and according to possible educational adjustment. Four degrees are usually distinguished which can be measured according to the amount of hearing loss (measured in "decibels"):[1]

1. Mild-marginal hearing loss (20 - 30 db)

These children can learn speech by ear, but may have difficulties in understanding speech under less than ideal acoustic conditions. They attend regular schools but require preferential seating in the classroom. Children with hearing loss over 35 db will need a wearable hearing aid.

2. Moderate hearing loss (40 - 60 db)

These children have enough hearing to learn speech and language by ear when the sound is amplified. They require intensive speech training and, ideally, auditory training. Attendance at a public school is desirable and possible if pre-school training has been started early.

3. Severe hearing loss (60 - 75 db)

These children have trainable residual hearing, but speech and language will not develop spontaneously. They require intensive auditory and speech training started during the second year of life. Formal education will be given in special classes or at a school for the deaf.

4. Profound hearing loss (over 75 db)

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1. The unit of intensity is the decibel. Intensity of sound is similar to loudness. Intensity of sound is an absolute value whereas loudness is dependant on auditory perception.

These children cannot learn speech and language by ear alone, even with amplification of sound, and must depend principally on lip reading. "With even a remnant of hearing, however, most can be aided by amplification if begun early. Amplification may contribute to vowel comprehension, awareness of voice and intonation, and improvement of the child's own speech and of his relations with his environment of sound."[1] Intensive pre-school training is essential for these children, as is education at a special school for the deaf.

There is a considerable lack of agreement as to the distinction between deaf and hard of hearing, and the different authorities in the field employ different definitions. According to the classification described above, the term "deafness" applies only to a profound impairment in both ears which precludes any useful hearing. A similar definition is used by the California State Department of Education:

> "If a child's hearing ability, even with the use of a hearing aid and auditory training, will not enable him to understand and acquire speech and language through his hearing, he is educationally deaf, if not totally deaf. If, on the other hand, a child's hearing ability with the assistanceof a hearing aid, with or without auditory training, will enable him to understand and acquire speech and language through his hearing, he is hard of hearing and not deaf."[2]

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1. Committee on Child Health of the American Public Health Association, Services for Children with Hearing Impairment, The American Public Health Association, Inc., New York 19, N.Y., 1956.

2. Watson, Charles W., "A Guide to the Education of the Deaf in the Public Schools of California;" Bulletin of the California State Department of Education, Vol. 24, No. 5, August, 1955, p. 14.

In the following the terms "hard of hearing", "hearing handicapped", and "hearing impaired" will be used to mean all degrees of hearing loss. The children who were the subjects of this study had hearing losses in the last three of the categories described above.

Services for Children with Hearing Impairment

Modern audiology centres and hearing clinics use the multi-professional team approach to provide comprehensive services to the hearing impaired child and his parents. In the past, individual programs were concerned with only one specific aspect of the problem - e.g. the clinic with the medical, the school with the educational - but the multi-discipline approach aims at the integration of all necessary resources. Diagnostic services include a psycho-social evaluation of the family's situation, and an exploration of areas of special need. The Committee on Child Health of the American Public Health Association outlines the broad objectives of a comprehensive diagnostic program as being five-fold:

"(1) To establish a medical and etiological diagnosis.

(2) To determine the seriousness of the hearing condition and suggest a prognosis.

(3) To appraise the effect of the condition on the child's physical and emotional development and on his parent's attitudes and feelings.

(4) To estimate the immediate and future needs of the child and his family - medical, psychological, social, educational, vocational and financial.

(5) To outline and recommend a long term plan of treatment, training and management."[1]

On the basis of the diagnostic evaluation, the clinical team can draw up a long-term treatment plan for each child. This includes auditory and speech training, speech-reading, if necessary, and the selection of a hearing aid. Over and above the provision of medical services directly related to the hearing problem, thorough attention is paid to the child's overall health, and therapeutic or preventative measures are prescribed, if required.

The active participation of the child's family is one of the main objectives of a good rehabilitation plan. This can be accomplished only if the parents are given an interpretation of the cause and degree of the hearing impairment, and understanding of the treatment process, educational possibilities and future expectations. Emphasis is put on the important part played by parents and home in providing the happy and stimulating experiences the child needs to feel secure and wanted. Some centres give a short course for mothers on the fundamental principles of speech and hearing training, as well as on questions pertaining to the overall management of a hearing handicapped child.

Experience shows that a periodic review and re-evaluation of each case is essential to secure the continuity of services, and to evaluate progress made. In general, community education and

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1. Committee on Child Health of the American Public Health Association, Services for Children with Hearing Impairment, The American Public Health association, Inc., New York 19, N.Y., 1956.

research are part of the indirect, but essential functions of an audiology centre. All these services lay groundwork for further progress in the field of audiology, and for the successful integration of the deaf person into a hearing community.

The Pre-School Hearing Program, Vancouver Health Centre for Children

In 1954, a pilot plan for hard of hearing pre-school children was started at the Health Centre for Children. Prior to its institution the young hearing handicapped child in the Province of British Columbia received little in the way of rehabilitation until, upon reaching the 5th year, he entered the Jericho Hill School for the Deaf in Vancouver. Pre-school training was left to the parents and to a few private speech therapists. Interested parents tried to teach their children with material provided by the John Tracy Clinic in Los Angeles, California. They had, however, no way of evaluating the actual progress the child made. Little help was offered with the special problems the children's social and emotional development was presenting. Behaviour and habit disturbances frequently were a source of serious concern to many parents, who had no way of coping with these difficulties. Many severely or profoundly hearing impaired children had not learned the meaning of a single word, or were not aware of the existence of speech, at the time of their admission to the school for the deaf.

The pre-school hearing program serves all children under the age of five years regardless of their parents income. Eligibility for admission is depending not on financial need, but on the ability

of the child and his parents to benefit from the services offered. Mental retardation or the presence of additional severely handicapping conditions, preclude acceptance into the program.

The children are referred by general practitioners, specialists and social agencies throughout B.C. Public health nurses have been especially helpful in bringing to the clinic's attention those children whose hearing loss has never been diagnosed.

On receipt of a questionnaire, completed by the referring physician or agency, appointments are made for mother and child to attend the clinic for a two weeks' period. If possible the father should be present during at least one session. The first week is devoted to a thorough assessment of the child's hearing problem, general health, social and emotional development and of family dynamics. During this time the child and his mother are seen by all the members of the treatment team: pediatrician, otologist, clinical psychologist, social worker, speech and hearing therapist, and bya panel of the metropolitan health committee. The geneticist and the dentist are consulted, if necessary. At the end of the first week a diagnostic conference is held. The members of the team discuss jointly all the aspects of the child's particular situation, and make recommendations as to treatment and management. The rehabilitation plan developed during this meeting of the different disciplines centres on the child as an individual, and as a member of a family group. The treatment plan is designed to meet the particular needs of the particular child and his family.

The second week is used to initiate a program of intensive auditory training. Mother and child are seen daily by the speech therapist and the social worker. All questions pertaining to the training, management and care of the child are discussed with the parents, and an interpretation given of the diagnostic findings. The mother is present during auditory lessons and made familiar with the basic principles of home teaching. A hearing aid is fitted, if necessary. Children living in the Greater Vancouver area attend weekly speech and hearing lessons in the clinic's therapy unit, and many are included in the playschool connected with the centre. "Out of town" children return to the centre, if possible, six to eight weeks after the initial assessment and every three or four months thereafter.

The pre-school hearing program is financially supported by the B.C. Child Care And Polio Fund, the Vancouver General Hospital, and the University of British Columbia. In addition, the B.C. Child Care and Polio Fund assists with those expenses arising out of the child's visit to the clinic which the parents are not able to bear alone. This includes travelling and living expenses and the purchase of a hearing aid. The "Easter Seal House", a residence located close to the centre, provides accommodation for mother and child during their stay in Vancouver. Children receiving auditory training, or attending the nursery school, travel via "Bunny Bus" to and from the centre.

During the six years of its existence some two hundred children have attended the H.C.C.'s pre-school hearing program. The successful work that has been done during this short time can, in part at least, be attributed to the comprehensiveness and flexibility of the approach. Its focus is not so much on "the handicapped child" but on "the child with a handicap". This child grows up in a physical, emotional and social environment which may promote or inhibit his future happiness. To make this world a better and more satisfying place for him is the true purpose of the program.

Scope of Present Study

Against the background of the work being done by audiology centres and special clinics, the purpose of this study is to examine the influence of parental attitudes and social environment on the development of the young hearing handicapped child. His response to early auditory and speech training is presented and reviewed in the light of his parent's acceptance or rejection of him, and his family circumstances generally. In this the role of the social worker as a member of the multi-professional team has a particular bearing.

The cases selected from the pre-school hearing program of the Health Centre for Children were all children born during the years 1954 and 1955, regardless of the year of referral and age of the child at the time of the referral. The reason for employing this method, as preferable to e.g. including only children who have been under treatment for at least two years, is that it represents a good cross-section of long-term and short-term cases,

and eliminates the possibility of introducing a subjective element into the study. This proved a manageable group, just short of fifty in total: 27 boys and 22 girls. These children, representing roughly one-fourth of all the cases referred during the years 1954 to 1959, had little or no speech, and varying degrees of speech comprehension and response to sound. Forty-three cases were accepted for continuing auditory training and casework service. In six cases, it was decided by the clinic team that the particular child would not benefit from the facilities offered at the clinic, and therefore a referral was made to community agencies more appropriate to meet the need of the child. These cases included two children with communication disorders due to emotional disturbance, and two children with severe mental retardation but no organic hearing loss. In one case, severe mental retardation precluded any effective treatment of the also existing profound hearing loss, and in another case, a mild hearing loss was regarded as a problem secondary to a cerebral palsy which required immediate intensive treatment. (These special cases are referred to in Chapter IV.)

For the "key" cases (42) two rating scales were developed to make an assessment of varied qualitative material in four areas:

1. The physical, intellectual, social and emotional status of the child at the time of referral and initial assessment at the clinic.

2. The physical, emotional and social conditions of the child's home and the inter-relationships between parents, mother and

child, father and child, siblings and child.

3. The progress in speech and hearing achieved by each child during the first year of auditory training, either in weekly lessons in the clinic, supported by home training, or in home training alone.

4. The progress in social and emotional adjustment achieved by each child during the first year of auditory training.

From these, the purpose was to move to the examination of correlations between parental attitudes and social environment and the intellectual, emotional and social adjustment of the hard-of-hearing child, and in general, the influence of parental attitudes on the treatment process.

Fourteen criteria were utilized for the assessment of the child, and sixteen for the assessment of the home. From these three simple ratings (good, fair and poor) were summarized for each. For the progress ratings the cases were divided into three groups according to degree of hearing loss, and ratings (good,satisfactory, slow and poor) described in regard to each case.

Out of the initial sample it was possible to give further study twenty-one cases, whose longer treatment (two years and more) allowed more detailed analysis. These were grouped according to their initial adjustment rating, and progress was determined with the help of four ratings: good, satisfactory, slow and poor. The same method was employed in rating the family situation and the degree of movement after a period of two years.

CHAPTER II

SOCIAL AND EMOTIONAL ADJUSTMENT OF THE CHILD.

To make a reliable diagnosis of hearing loss, and especially of the degree of hearing loss in a small child, is in most cases a difficult matter; so many factors can enter to obscure the diagnostic picture. Apart from the task of gaining the co-operation of a young child in a test situation, the accuracy of the assessment can be made impossible by the fact that the child does not respond to sound even if it is brought to him through an amplifier; sound may simply have no meaning to him. He may on first examination present the picture of a profoundly deaf child, yet re-examination after a period of exposure to sound - and thus, stimulation of his residual hearing - may reveal that the hearing impairment is only a moderate one.

Another diagnostic obstacle is presented by the child whose hearing loss does not include the entire hearing range: he is able only to perceive the higher frequencies or lower frequencies. The result of high-tone deafness, for instance, is usually a serious speech impairment, since consonants can not be distinguished, while hearing for the lower frequency ranges may be normal. The child's speech may be so distorted that it is unintelligible and ineffective for most people.

In the present study, the total number of children (42) were grouped according to severity of hearing disability into three main groupings. Children with moderate hearing loss are described

as Group I, with severe hearing loss as Group II, with profound hearing loss as Group III. Thirteen, or 31% of these children were diagnosed as having a moderate hearing loss, Ten, or 24% presented a severe hearing loss, and nineteen, or 45% were classified as profoundly hearing impaired.

If this sample is representative nearly 50 per cent of all the children referred to the Pre-School Hearing Program of the Health Centre for Children have a profound hearing loss, with three resultant secondary effects from their inability to hear speech sounds:

Firstly, the inability to recognize the meaning of sounds and words, and to interpret them, precludes the development of "inner language", and therefore the development of speech and language. "Without normal language reception, there cannot be normal language expression."[1]

Secondly, language is a main tool in establishing social relationships: the inability to use language in this way, and to gain satisfying experiences inside or outside the confines of the home and the immediate family group, may lead to arrest or retardation in social and emotional growth. This may find overt expression in various kinds and degrees of behaviour disorders and in emotional and social immaturity. It may show up also as impairment in the area of object relationships. Dr. and Mrs. Alex W.Ewing, whose work

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1. Myklebust, Helmer R., Auditory Disorders in Children, Grune & Stratton, New York, 1954, p. 13.

in Manchester has contributed much to the increasing understanding of the importance of early auditory training, write in their book "New Opportunities for Deaf Children":

> "An untrained deaf child must find an outlet for his emotions that will serve him in place of speech. He is continually experiencing situations that rouse in him a sense of frustration. He has not the same chance as a hearing child of developing a firm sense of security."[1]

The Ewings go on to say:

> "All these effects of deafness unite and may encourage the development either of what appears to be a passionate temperament or one that is wholly docile, compliant, without initiative, or reluctant to make any physical or mental effort. All the characteristics of temperament that appear in more or less degree in ordinary children are commonly to be found also in deaf children, but often in an intensified form."[2]

The young deaf child, deprived of the verbal outlet for his aggression, will use and retain behaviour patterns which have been found useful in earlier stages of his development.

Thirdly, deafness is a "general intelligence" sort of handicap. The child is far less able to use language as "a system of symbols which can be used in place of, or to represent objects, ideas, and feelings."[3] Thus, limited social experiences and gratifications may seriously interfere with the child's utilization

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1. Ewing, Irene R., and Ewing, Alex W.G., New Opportunities for Deaf Children, University of London Press Ltd., Warwick Square, London E.C. 4, 1958, p. 31.

2. Ibid., p. 31.

3. Myklebust, Helmer R., Auditory Disorders in Children, Grune & Stratton, New York, 1954, p. 145.

of intellectual capacities. They make him appear slow or even retarded, depending on his circumstances and degree ofhelp he has received from his parents.

At least one comprehensive survey of the intellectual, social, emotional, linguistic, and motor development of deaf pre-school children is available for study. This was conducted in Manchester between the years 1948 and 1953. The survey included 180 young deaf children, and a control group of children with normal hearing, matched for age and socio-economic status. The main methods used in the study were the application of a variety of performance tests, and of case analysis after a thorough study of each individual child and its family over an extended period of time. The survey showed that:

> "the greatest differences between deaf and hearing children were, not unnaturally, found in the area of speech and language development. Not only does speech as communication tend to be grossly retarded, but also affected are the many processes of abstraction, relational thinking, conceptualization and imagination which are facilitated and refined by the use of language. The young deaf child is tied far more closely to the here and now of his immediate perceptual experience than is his normally hearing contemporary, and his comparative failure to develop the referential framework of language carries inevitable consequences for his mental development as a whole. However, the most serious effect of linguistic retardation at the pre-school level is, perhaps, in the area of social and emotional development."[1]

Various other studies confirm Dr. Kendall's findings in the Manchester survey, namely (a) that deaf children show a higher incidence

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1. Proceedings of the Royal Society of Medicine, Section of Otology, London, 1955.

of emotional disturbances and behaviour problems than their hearing contemporaries, and (b) that these problems tend to increase instead of decline at school age.

The question arises: Is this development inevitable? Is it even universal? Do all children with a hearing loss serious enough to interfere with normal speech development present disturbed social and emotional behaviour patterns and mental backwardness? (A reminder is perhaps in order that not included in this discussion are children with any severe secondary disability, or mentally defective children. Reference is made solely to children with hearing loss, present since birth or acquired at an early age, but normal in any other ways.) Time and again young children can now be encountered who, in spite of a severe hearing impairment, are well advanced in their social, emotional and intellectual development. Onthe other hand, there are numerous examples of others with a perhaps less significant loss but with signs of serious maladjustment in alll, or most areas of maturation. In the first group we are likely to find skills in communication other than the use of simple gestures, and a willingness and responsiveness to learn; the latter group by contrast, tends to be silent and fifficult to reach. The key to the understanding of this significant difference in these children's behaviour and their ways of reacting lies in three related areas: in the home, in their physical, emotional and social environment, and in their more important personal relationships. The security and warmth of a stable home and of accepting, understanding parents will

provide the background for the growth of a healthy personality, and will afford sufficient motivation towards successful rehabilitation. Negative experiences in family relationships, on the other hand, and the existenceof social malfunctioning in the home tend to lead to arrest or regression in the child's overall development; his capacity to learn is weakened, and so is his chance of profiting from auditory training.

A child who has learned to regard the world as a hostile, or at least indifferent, place will not have the desire to communicate with this world. The most important pre-condition to successful rehabilitation of the young deaf child through early auditory training is, therefore, the active and positive involvement of the home in the educational process. Without the parent's acceptance of the handicapped child, their understanding of the problems he is facing in the courseof his growing-up process, and their positive approach to the treatment plan, the best clinical program will be doomed to failure. The child's emotional and social adjustment, and his response at the time of the initial assessment at the clinic will give early and significant clues to prognosis: they will probably determine the course of action the clinic team will map out for the individual child. It is essential in treating the young deaf child that the rehabilitation plan is related not only to the degree of hearing loss and to his intellectual potential, but to his particular situation, the stage reached in his emotional and social development,and his ability to learn and to absorb. Aural stimulation

has to go hand-in-hand with emotional and social stimulation, and with the continuing support of the parents.

Ages of the Children

The total group of children in the study were referred to the clinic between the years 1955 and 1959, their ages between eleven months and four years ten months at the time of their first assessment. The majority of children were between two and four years old when first coming to the clinic (Table 1). Only a relatively small number of cases came to attention early, that is between birth and age two, and two-thirds of these had a profound hearing loss, while there were no cases of moderate hearing impairment at all among this group. This seems to point out clearly that a mild or moderate hearing loss will remain undiagnosed longer than a profound one, since the children in the first group do not display the complete unresponsiveness to any kind of sound which is so alarming in the severely or profoundly deaf child, and speech delay can be and will be explained by parents, and often by doctors, with a number of factors. It is at an age when speech should be normally well developed and readiness for language learning at its peak, that retardation in the acquisition of speech will be related to a possible hearing defect, and the necessary examinations performed. Half of the children referred between age three and three years eleven months presented a moderate hearing loss.

Table 1. Degree of Hearing Loss of the Sample Group, and Age at which they came to the Clinic.

Age when first at Clinic (years)	Degree of Hearing Loss (Percentage Distribution)			Total
	Moderate	Severe	Profound	
Birth - 1.11	-	25	75	100
2 - 2.11	33	27	40	100
3 - 3.11	50	16.5	33.5	100
4 - 4.11	28.5	28.5	43	100
Total	31	24	45	100

Place of Residence

The grouping of children in those living in the Vancouver area, and in those coming from various parts of B.C. (Table 2), shows that there is an almost even distribution of cases over the two areas. Vancouver children have the advantage of receiving regular weekly or twice weekly auditory training by the clinic's speech and hearing therapist in addition to daily lessons given by the mother. The "out of town" child's rehabilitation program, on the other hand, is set up on a home management basis. While in Vancouver for the initial investigation of his hearing impairment, the child receives daily intensive auditory training over a two-week period, and the mother is taught the fundamentals of hearing and speech. Return to the clinic for a one-week period, eight weeks after the first assessment, and every three to four months thereafter, is part of the overall rehabilitation plan. Since the B.C. Child Care and Polio Fund provides financial help, if necessary, and reservation for accommodation in the Easter Seal House is made by the clinic, many families are able to take their children regularly for their appointments. The clinic's approach in making these arrangements is as flexible and personal as possible, taking into consideration parental wishes and preferences as to month or week, and notifying the family well in advance so that alternate plans can be made, if required. In spite of all the help available, some children are not seen as frequently as desirable and necessary. This is due in some cases to environmental difficulties, e.g. a large number of childred for whom adequate substitute care cannot always be

provided during the absence of the mother, or to indifference and ignorance of the mother. However, most mothers manage to bring their children at least three times a year to Vancouver.

The figures indicating the length of treatment for each child are not significant as to their remaining or being withdrawn from the program, since these children were referred to the clinic over a four-year period, and the length of treatment varies accordingly.

Table 2. Place of Residence of the Sample Group, and Length of Contact with the Clinic.[1]

Length of Contact.	Residence		Total
	Vancouver	Province	
Assessment only	-	1	1
Short Contact ($\frac{1}{2}$ year)	3	-	3
1 year treatment	7	7	14
2 year's treatment	7	7	14
3 year's treatment	4	1	5
4 year's treatment	1	1	2
Total	22	17	39

1. Not included in this table are three cases from other Provinces.

The children in the sample group have been referred to the pre-school hearing clinic from other provinces, Alberta and the Yukon, and one child came from Alaska. Ian, the little boy from Anchorage, Alaska, and Ann, whose home is a small rural community in Alberta, have been seen for assessment and consultation only, and receive now treatment in their local areas. Both these children had above-average intelligence and ability and were surprisingly well adjusted, emotionally and socially. They both came from a stable home, and have understanding, accepting parents.

Jean, a little Indian girl from the Yukon, had been brought to the attention of the clinic by her local Social Welfare Branch. The co-operation of both agencies had made it possible to bring the child to the clinic for the two-week assessment period. A severe hearing loss was diagnosed, and since the home conditions were very unsatisfactory for a child with this kind of handicap - Jean, an illegitimate child, lives with her grandparents in a log cabin miles away from civilization - fosterhome care in Vancouver was regarded as a basis for any further planning. It took almost one year before Jean could return to Vancouver - to find a suitable foster home had proven to be a difficult task - but through the combined efforts of three interested agencies this child has been given her one chance towards a happier and more normal life.

Emotional and Social Adjustment of the Sample Group

Information can now be brought together allowing an assessment of each child's physical, social and emotional adjustment at the time of his first examination at the clinic (Table 3). This

information is based on three records which are put together for each child accepted as a candidate for the pre-school hearing program: the medical chart, the pilot plan file, and the social service file. These three records contain (a) a comprehensive social history compiled by the social worker, (b) an account of the series of interviews held with the mother during the two-week assessment period, as well as (c) observations of the child's behaviour and reactions at the clinic, (d) reports by the otologist, the pediatrician, and the psychologist, (e) a report by the metropolitan health committee on mother and child, and (f) a detailed account of the speech and hearing therapist's experience with the child during daily sessions of hearing tests and auditory training, with special stress on the child's ability to co-operate and willingness to learn. Letters from the referring physician or agency, giving some background information on the child and his family, and a completed questionnaire sent by the clinic to the source of referral, rounds up the informational picture.

Three ratings (good, fair, and poor) were worked out for each of the criteria selected to assess emotional and social adjustment and to determine motivation to learn. The details are brought together in Appendix A "Suggested Criteria to Evaluate Emotional and Social Adjustment of the Hearing Impaired Child". Using these criteria ratings were made for each of the forty-two children in the study.

The remarkable feature of this data is the relatively high incidence of well adjusted children (35 - 50%) as compared with the smaller number of children who show serious disturbances (20 - 36%). It is also interesting to note that adjustment is comparable (good or poor) in the areas of emotional adjustment and socialization. In the area of responsiveness the figures are slightly higher for the A group and slightly lower for the C group, compared with the figures in the two other areas. In other words, many young children who display a high degree of maladjustment in the emotional and social area of development are willing to learn and to gain new experiences if they receive patient interest and continuing acceptance. This underlines the value of a two-week assessment period as compared with a shorter period of time. Several records show that children who displayed an almost autistic reaction pattern during the first week at the clinic, began to show some interest and response during the second week.

Table 3. Emotional and Social Adjustment at Time of First Examination at the Clinic

(Percentage Distribution)

*Rating: A; Good. B; Fair. C; poor.

	FACTOR	A	B	C
1.	Physical development	41	38	9
2.	General intelligence	19	69	12
3.	Mental alertness	50	33	17
4.	Emotional development	36	28	36
5.	Self assurance (dependence)	43	21	36
6.	Self control	33	36	31
7.	Happiness	41	23	36
8.	Relationship with mother	47	22	31
9.	Relationship with siblings *	41	19	21
10.	Ability to relate to other children	43	36	21
11.	Ability to relate to strangers	43	38	19
12.	Response to social stimulation	50	33	17
13.	Co-operation (clinic)	45	41	14
14.	Willingness to learn (new experiences)	55	28	17

* 8 children, or 19%, had no siblings

The total cases (42) were grouped according to the severity of hearingloss to allow for a comparison of possible differences, and the ratings (good, fair and poor) based on the results of the detailed analysis in Table 3 were applied to each case. (Table 4) Against expectation, the majority of severely maladjusted children is not found in group 3, but in group 1. Almost half of these children display severe behavioural problems, while in the profoundly deaf group only a little less than one-third of all cases present serious disturbances. These seemingly contradictory findings can be understood if consideration is given to the fact (suggested in Table 1) that in many cases a profound hearing loss is diagnosed earlier than a moderate one. A moderate hearing loss could go undiscovered for a number of years; the child's inconsistent responses to speech may be regarded as naughtiness, stubbornness and laziness, and disciplinary measures employed by parents, all of which would create and enhance negative reactions on the part of the child. The mother of one very disturbed little boy admitted frankly: "If he doesn't understand what I say, I slap him."

The possibility has to be reckoned with, that a small proportion of the children in group 1 does not have a hearing loss at all; they may have found a retreat from the world of sound the only way to escape from a threatening and hostile reality. These children may respond to sound at one time and ignore it at others - thus presenting a very puzzling symptomatic picture which,

in the small child, is certainly very difficult to diagnose and assess. Only frequent re-examinations, and a thorough knowledge of the home situation in doubtful cases, can determine the real nature of the child's lack of response to sound. The protective environment which the clinic offers in its therapeutic group sessions, will probably have a beneficial effect on this group of children also.

Table 4. Social and Emotional Adjustment at Time of Initial Assessment, in Relation to Hearing Loss.

Physical Diagnosis:	Initial Assessment (Percentage Distribution)		
	A	B	C
1. Moderate	31	23	46
2. Severe	40	30	30
3. Profound	42	26	32
Total =	38	26	36

Progress after One year of Treatment

The same group of children (except three who did not enter treatment), whose emotional and social adjustment was rated at the time of initial clinic contact, (tables 3 and 4) was again rated at the end of one year (tables 5a and 5b). Ratings of good, satisfactory, slow, and poor were applied to each case. Accordingly, these two tables bring together information on these children's progress in the areas of speech and hearing, and of general socialization, during their first year of auditory training. A comparison of the data shows that progress in speech and hearing has been slow, but in the area of emotional and social adjustment improvement is much more discernible. It has to be expected, however, that the results of auditory training arevery slow. The child has to be made aware of sound, and he has to be taught to listen, if he is to develop a vocabulary which will ultimately be reflected in speech. This initial period takes approximately one year; the subsequent years then see a progress in the use of speech. Obviously it is of the utmost importance that during this first year the child develops an increasing desire to communicate verbally, and also that the parent's understanding of the program, and their ability to enter into it, is strengthened. This first year of auditory training is a crucial one, and it is impossible to underestimate its weight in the program. It determines to a great extent future orientation on the part of child and parents, yet its success is not measured by the actual production of speech, but by the degree of awareness of sound the child develops, by the emergence of more mature emotional and social patterns, and by the increase in parental understanding and participation.

Table 5a. Progress in Hearing and Speech (first year)
Rating: A; Good. B; Satisfactory. C; Slow.
D; Poor.

Physical Diagnosis: Hearing Loss.	Amount of Progress (Percentage Distribution)			
	A	B	C	D
1. Moderate	31	8	15	46
2. Severe	10	40	30	20
3. Profound	12.5	6.25	25	56.25
Total	18	15	23	44

Table 5b. Progress in Social and Emotional Adjustment (first year)

Physical Diagnosis: Hearing Loss.	Amount of Progress (Percentage Distribution)			
	A	B	C	D
1. Moderate	38	8	31	23
2. Severe	50	10	30	10
3. Profound	25	25	31.25	18.75
Total	36	15	31	18

A More Comprehensive Analysis.

Out of the total sample, there were only twenty-one cases of children who had continuing auditory training over a period of two years or more. These were grouped according to their adjustment rating at the time of initial assessment (table 6). The progress in the areas of speech and hearing and of emotional and social adjustment was determined in each case with the help of four ratings: Good, satisfactory, slow and poor. These are identified by convenient symbols in the table.

In Group 1 all seven children had rated "good" in their emotional and social adjustment at the time of first contact with the clinic. The typical situation during the first year is "satisfactory" and "good" in their speech development, and also in their social and emotional development. During the second year their typical score in the physical field is variable, and "good" in the area of maturation.

The middle group (11) were those with "fair" adjustment at the time of initial assessment. Their typical score during the first year of auditory training is "poor" in speech, and "slow" in the area of maturation. During the second year the progress made in both areas varies considerably from case to case, and no typical situation can be identified. It is probably significant that in all three cases where regression in emotional-social adjustment ensued after progress made during the first year, either little

or no support had been given from the parents, or the home situation had actually deteriorated.

In Group lll most of the children presented severe emotional disturbance at the time of their referral to the clinic. The typical situation for them is that during the first year of auditory training no progress is made in speech and hearing, and progress in emotional and social adjustment is equally poor. (Only two out of nine cases show even "slow" progress in this area). The progress during the second year of training is slightly more encouraging, with results still "poor" in the physical area, but "slow" progress in social and emotional development as the most typical situation. Four children who had rated "poor" in degree of socialization during the first year, rate "slow" during the second year, with speech progress still "poor". The two children who showed a "slow" progress during their first year now rate "satisfactory" in their social andemotional adjustment, with speech progress rating "slow" and "satisfactory", respectively. The difficulties of this low-grade group show in the typical situation even in the third consecutive year of training. These four children have made little or no progress in their development of speech and hearing. There is, however, a slight improvement in their emotional and social adjustment.

Considering all cases together, two patterns can be recognized:

Table 6. Comparison of Progress in Related Areas (21 Children)

Initial rating: AA: Good; BB; Fair; CC: Poor.

Progress Rating: A: Good; B: Satisfactory; C: Slow; D: Poor.

Child	Speech				Social - Emotional			
	Initial	1st yr.	2nd	3rd	Initial *	1st yr.	2nd	3rd
Group 1								
1. Tommy	CC	B	D	C	AA	B	C	B
2. Rita	CC	D	D	C	AA	C	C	B
3. Mary	BB	A	A		AA	A	A	
4. Joy	CC	C	B		AA	A	A	
5. Jerry	CC	B	A		AA	A	A	
6. Ruth	CC	B	A		AA	A	A	
7. Robert	CC	C	B		AA	A	A	
Typicality	CC	B	variab.	-	AA	A	A	-
Group II								
8. Chris	CC	D	D	D	BB	C	D	D
9. Wendy	CC	D	D		BB	B	C	
10. Kay	CC	D	B		BB	B	A	
11. Roy	CC	C	B		BB	C	B	
12. Kenneth	CC	D	D		BB	B	C	
Typicality	CC	D	variab.	-	BB	B	variab.	-
Group III								
13. Timmy	CC	D	D	D	CC	D	D	C
14. Leo	CC	D	D	D	CC	D	C	C
15. William	CC	D	D	D	CC	D	D	D
16. Frank	CC	D	D	C	CC	D	C	B
17. Charles	CC	C	C		CC	C	B	
18. John	CC	D	B		CC	C	B	
19. Carla	CC	D	D		CC	D	D	
20. Ralph	CC	D	D		CC	D	C	
21. Shirley	CC	D	D		CC	D	C	
Typicality	CC	D	D	-	CC	D	C	-

* See Table 3 for details of factors on which rating based.

Pattern 1. The children who were well balanced emotionally and socially at the time of the first assessment, made on the whole good or satisfactory progress: their speech development improved as well as general maturation. On the other hand, those children presenting immature and grossly disturbed behaviour patterns at the time of the initial contact with the clinic, show on the whole poor or slow response to auditory and speech training. The five children in Group II, whoseinitial adjustment had been rated as "fair", show varying responses to training, with scores from "poor" to "satisfactory" in the development of speech and hearing, and from "poor" to "good" in their behaviour. This lack of a typical score is readily understandable in the light of the ambiguous position this group occupies. These cases do not fall into one clear cut category or pattern. The children classified as having reached a "fair" adjustment display varying degrees of behaviour and responses, which are either closer to Group I reaction pattern, or closer to Group III reaction patterns. It can perhaps be expected therefore, that, under favourable conditions, these children will develop more mature behaviour patterns; while under conditions unfavourable to healthy personality growth, further regression will take place. This is reflected clearly in the progress the children have made during two years of auditory and speech training.

Pattern 2. In almost all cases where progress was most discernible,

it showed first in the area of emotional and social adjustment before marked results in speech and hearing could be identified. In nine cases out of twenty-one progress in maturation was followed during the next year by progress in speech and hearing. In at least two cases the two developments appeared more or less simultaneously. In no case, however, was there any progress in speech development without movement in the social-emotional sphere also.

CHAPTER III

FAMILY INFLUENCES AND THE CHILD'S RESPONSES.

Early family experience is the important factor in personality development and in determining the individual's continuing mode of relating to his environment. The growing child will reflect in his behaviour, in his response to people, and in the degree of readiness to move on into the next phase of his maturation, whether these experiences are friendly ones, giving him optimal conditions for healthy growth and development, or whether these experiences are unhappy, stifling in him the wish to grow up, to learn, to compete, or creating in him "a reservoir of hate", the desire to hurt back, kick back, fight back. These are the extremes, between them beingthe wide range of responses which express varying degrees of happiness, stability, frustration, bewilderment, lonliness and fear. The environment of the young child are his parents, siblings - his immediate family - and it is through his parents that the young child views the world. Traumatic experiences, "the early injuries", in this phase of life can become strong, dynamic, important factors for personality difficulties, the outer manifestation being a variety of deviant behaviour patterns as an attempt to adapt to anxiety.

Spitz, Bowlby and others have, on the basis of extensive research, developed the theory that close mother-child

relationship is essential for the future mental health of the child. Unhappy human relationships in early life, Rene Spitz's "maternal deprivation", have been recognized as one of the most important causes of disturbances and behaviour disorders in children. Dr. Bowlby says in this regard:

> "What is believed to be essential for mental health is that the infant and young child should experience a warm, intimate and continuous relationship with his mother (or permanent mother substitute) in which both find satisfaction and enjoyment. Given this relationship, the emotions of anxiety and guilt, which in excess characterize mental ill health, will develop in a moderate and organized way."[1]

And Dr. Bowlby continues:

> "it is this complex, rich, and rewarding relationship with the mother in the early years, varied in countless ways by relations with the father and with siblings, that child psychiatrists and many others now believe to underlie the development of character and of mental health."[2]

The term "maternal deprivation" is not used solely in the sense of physical separation and institutionalizing. Emotional deprivation through gross parental rejection will have the same consequences in terms of often irreversible mental disturbances. A more subtle form of deprivation is "an unconsciously rejecting attitude underlying a loving one."[3] A Noyes states that "parental over-solicitude is

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1. Bowlby, John, Maternal Care and Mental Health, World Health Organization, Palais Des Nations, Geneva, 1952, p. 11.

2. Ibid., p. 11.

3. Noyes, Arthur P. and Kolb, Lawrence C., Modern Clinical Psychiatry, W.B. Saunders Company, Philadelphia and London, reprinted November, 1958, p. 581.

much more frequent than neglect and is equally pernicious in its results",[1] and that "as mothering over-solicitude may represent the denial and disguise of a hostile rejection of the child - a device for the denial of hate."[2] This "unconsciously rejecting attitude" manifested in over-protectiveness and over-solicitude, is the attitude more commonly found in parents of handicapped children than overt rejection and neglect. These children are kept in a state of prolonged dependency on the mother and denied the experience of healthy frustrations which are so important for the development of the independent, mature personality. The consequences will be equally damaging for the child's future health and happiness, as they are for the child who is exposed constantly to too many frustrating situations and has no chance to gradually learn to cope with them. In both cases the child's reaction may find expression in "fight" or "flight", in over-aggressiveness, destructiveness, excessive temper tantrums, or in regression and withdrawal. Often children find a way of adapting to the anxiety producing situation by putting up a docile, submissive front, and repressing any sign of spontaneity and creativity.

That behaviour problems will be present in the hearing impaired child more frequently than in his hearing contemporary

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1. Ibid., p. 580
2. Ibid., p. 581

can be expected. The very nature of his handicap renders him vulnerable to all kinds of frustrating situations. Hearing has been defined by Myklebust as "a primary sense for purposes of maintaining contact with the environment",[1] and speech as "a fundamental means of establishing contact with people, and people are the major part of the environment, especially for infants and young children."[2]

The hearing impaired child, therefore, is deprived of the means to establish and to maintain contact with the environment. This does not mean solely that he cannot hear speech. Dr. and Mrs. Ewing have identified five main ways in which hearing is important to living:

"(1) It plays a part in the development of speech and communication,

(2) it is a continual source of information about things and happenings within our immediate physical environment,

(3) it provides warning signals that are important to physical safety,

(4) it gives help to the individual in acquiring and maintaining physical skills,

(5) for all these reasons, hearing forms a link with the rest of our world - an instinctively based emotional link, that contributes to mental health and social ease."[3]

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1. Myklebust, Helmer R., Auditory Disorders in Children, Grune & Stratton, New York, 1954, p.182.

2. Ibid., p. 184.

3. Ewing, Irene R. and Ewing, Alex W.G., New Opportunities for Deaf Children, University of London Press Ltd., Warwick Square, London E.C. 4, 1958, p. 11.

To be deaf, therefore, means for the child that he also is not aware of all the little warning, reassuring, guiding sounds and noises of everyday living, which are so much a part of the growing and learning experience of the young child. By learning to identify and to discriminate the sounds he hears every day, the child gains knowledge about the world around him. To be able to connect certain sounds and noises with certain persons, activities and events develops a sense of security in the small child. He perhaps cannot see his mother, she is in another room, but he can hear her voice, he knows she is there. The child wakes up in the morning, and hearing all the familiar noises around him - father, mother, siblings getting ready for the day - gives him a sense of belonging, of being a part of this family group; or the child learns about nature around him, about the rain, the wind, trees, animals by learning to distinguish their characteristic sounds, and to incorporate them into his more and more expanding world. The deaf child's world is silent, bare of all the unconsciously perceived, but meaningful sounds and noises which play such an important part in making things around us come to life. He also is unaware of all the warning sounds, the blowing of a car horn, for instance, or of approaching footsteps; and he does not get the feeling of comfort and well being from hearing his mother's reassuring voice.

With the growing understanding of speech the child gradually learns to distinguish between "do" and "don't".

The deaf child does not know what is expected of him, what he can do, and what he can't do, and why, since he cannot be guided by spoken suggestions and explanations. Since he is not able to learn speech by imitation of sound, he cannot make his wants known and will have to rely on gestures, often accompanied by shouts and screams. Failure to comprehend what is expected of him, and failure in having his own wishes and needs met, will lead to an increasing sense of isolation, confusion and frustration, expressed by frequent temper tantrums and other behaviour disturbances.

The ability to communicate is an important factor in establishing social relationships. In daily play with his pears the young child learns to give and take, to obey the rules, to guide and to follow, and his first lesson in how to get along with one's fellow men. Here too, the hearing handicapped child finds himself at a disadvantage. Even if he is accepted by other children,he will not be able to follow the rules of their games, to understand their spoken commands, their joking and teasing, and will feel left out and isolated. He might withdraw from their company, cling to his mother excessively remaining dependent and self-centred, or find comfort in a world of fantasy and narcissistic play.

Assessment of the Family

For the purpose of the present study, it was essential to attempt some assessment, for comparative purposes, of the strengths and weaknesses of the families. After examination

of the data available in the records, and some experimental classification, a schedule of about twenty items was adopted. The items and the general criteria on which ratings of "good", "fair" and "poor" were assigned, are set out in Schedule 2, Appendix A.

Each case having been rated separately, it is then possible to tabulate all the items for the total 42 cases, showing the collective (and proportionate) rating of the sample for each case (Table 7).

Of necessity these must be somewhat approximate. It is convenient to describe the "areas" broadly as those of economic status, family strength and parental strengths (along with two other assessments - co-operation with clinic, and understanding of treatment goals - which are relevant to clinical process.) It is noticeable that agreement is closest on the six indications of "parental" strength or weakness. There is least agreement on economic status, the material items showing a different pattern from the "intangibles". This is in accord with our current situation of relatively higher wage rates. Other agency experience is confirmatory on this point.

Table 7. Factors in Family Assessment
(Percentage Distribution)

Rating: A; Good. B; Fair. C; Poor

FACTOR	A	B	C
Economic Status			
1. Income	28.5	47.5	24
2. Employment (M)	19	55	26
3. Housing	24	35.5	40.5
4. Education (*)			
M. (a)	5.5	23	71.5
F. (b)	6	25	69
5. Socio-economic status	2.5	33.5	64
Family Strengths			
6. Marital Relations (spouses)	43	19	38
7. Financial Management	33.5	31	35.5
8. Social handicaps	29	35.5	35.5
9. Family stability	43	31	26
Parental Strengths			
10. Mother-child relationship	45	33.5	21.5
11. Father-child relationship	53	21	26
12. Acceptance of handicap			
M. (mother)	45	33.5	21.5
F. (father)	53	16	31
13. Insight into child's needs	38	24	38
14. Handling of child (discipline)	40	22	38
15. Co-operation with clinic	57	33	10
16. Understanding of treatment goals	43	35.5	21.5

(a) Percent are given here from the 35 whose education was known
(b) Percent are given here from the 32 whose education was known

Economic Status

The income levels of the sample group follows (yearly income):

$ 4800.00 or more; steady employment	10
$ 2400.00 - $4800.00	20
Less than $2400.00; social assistance; unemployment insurance, etc.	10
Total	42

Judging from this alone, it is to be noted, that nearly one-quarter of the families included in this study fall in the low or marginal income group. If the usual financial requirements relating to admission to the O.ED. of the Health Centre for Children had not been waived for children admitted to the pre-school hearing program, only ten children, and children out of large families in the $2400.00 - $4800.00 income group would have been eligible to receive free treatment. This shows the value of a comprehensive treatment program. Many parents, even in higher income groups, would not be able to afford the substantial costs involved in providing auditory trainingfor their children on a private basis.

Family Strengths

It is reasonable to expect that the stability and quality of the marriage should have a direct bearing on the parent's ability to accept the handicapped child, and to give him the kind of experiences necessary for healthy development. A satisfying

marriage, in which both partners share in the responsibility of raising their children in an atmosphere of mutual affection and trust, would contribute much to the stimulation of the deaf child's intellectual, emotional and social capacities. In the marriage, on the other hand, where both partners are constantly engrossed in a battle for control, or where a lack of communication and sharing of mutual goals erect barriers between the spouses, little time, concern, and warmth is left for the child; indeed, his handicap may make him an object of hateful reproach between the parents.

A happy marriage will create a higher degree of family stability, while serious marital discord tends to lead to deterioration of family life and to deprivation of the children. However, some cases indicate that parents who are concerned about their marital difficulties, and work on the resolution of their problems, will create a more stable home for a child than the couple without the wish or the insight to make a better adjustment.

A More Comprehensive Comparison

A more intensive analysis is possible for half the sample (21 cases) because they were at the clinic for two years and a few cases as long as three years. This makes it possible to compare the overall rating of the child at the time

of the initial assessment with the overall rating of his family, and with the progress rating in the areas of speech andhearing and of social-emotional development after a period of two years and three years. The progress rating of the family situation after two years of connection with the centre is included also. (Table 8).

In the effort to make this more definitive, the cases were grouped according to the rating of social-emotional adjustment at the time of the initial contact. Group I was rated "good; Group II "fair" and Group III "poor". Each group, of course, contains children with varying degrees of hearing loss.

In the analysis which follows, the comparisons can be heightened by means of case illustrations.

Table 8. Comparison of all Major Ratings

Initial Rating: AA: Good. BB: Fair. CC: Poor. (Also used for family ratings after two years).

Progress Rating: A; Good. B: Satisfactory. C: Slow. D: poor.

Case	Overall Rating		Speech		Social-Emotion.		Fam.
	Child (a)	Family (b)	2 yr.	3 yr.	2 yr.	3 yr.	Situation 2 yr.
Group I							
1. Tommy	AA	BB	D	C	C	B	BB (c)
2. Rita	AA	BB	D	C	C	B	BB
3. Mary	AA-	BB-	A-		A-		BB-
4. Joy	AA	AA	B		A		AA
5. Jerry	AA	AA	A		A		AA
6. Ruth	AA	AA	A		A		AA
7. Robert	AA	AA	A		A		AA
Typicality	AA	AA	variable	-	A	-	AA
Group II							
8. Chris	BB	CC	D	D	D	D	CC
9. Wendy	BB	AA-	D		C		BB
10. Kay	BB	BB	C+		A		BB+
11. Roy	BB	BB	B		B		BB
12. Kenneth	BB	CC	D		C		CC
Typicality	BB	variab.	low var.	-	variab.	-	BB
Group III							
13. Timmy	CC	CC	D	D	D	C	CC
14. Leo	CC	CC	D	D	C	C	CC
15. William	CC	CC	D	D	D	D	CC
16. Frank	CC	CC	D	C	C	B	BB
17. Charles	CC	BB-	C		B		BB
18. John	CC	CC	B		B		BB-
19. Carla	CC	CC	D		D		CC
20. Ralph	CC	CC	D		C		CC
21. Shirley	CC	CC	D		C		CC
Typicality	CC	CC	D	-	variab.	-	CC

(a) See Table 3 for details of factors on which rating based
(b) See Table 7 for details of factors on which rating based
(c) Fosterhome.

Group I consists of seven children whose overall rating at the time of the initial contact has been "good". The typical score for the rating of the family situation is "good". Four of the children come from a socially and emotionally stable home, with both parents manifesting warmth and acceptance, and having adopted a sound approach to the management of their child. Mother-child relationship was also good in the three cases where the family situation rated as "fair"; father-child relationship was "good" in six cases, "fair" in one case.

The common characteristic in all seven children was the spontaneity and ease with which they related to strangers, and co-operated in the clinic situation, a reflection on the security and warmth they received in their homes.

Temporary regression in the child's behaviour due to environmental influences occurred in two cases. Tommy (Case 1) illustrates the influence a change in environmental security has on the over-all adjustment of the hearing handicapped child and on his response to auditory training. Tommy was an outgoing, happy little boy when first brought to the clinic. Although there was an indication of marital tension and of immaturity on the part of the mother, he seemed to receive warm acceptance and affection from both parents. Tommy responded well to his lessons at the clinic, developing a good awareness of sound and understanding of speech. During the course of his first year of auditory trainingthe marital difficulties between his parents mounted, leading one year later to the break-up of the home. During this year Tommy regressed in his behaviour, as well as in speech

development, and progress at the end of his secondyear of training was recorded as "poor". Placed in a fosterhome Tommy's behaviour and his response to treatment are improving. Rita (Case 2) demonstrates clearly that continuous stresses and worries in the family have repercussions on the child's behaviour, and consequently on his progress in auditory training. This child's serious hearing loss was diagnosed before his first birthday, and a program of aural and speech training initiated immediately. At the time of the assessment, Rita was described as a happy, contented baby, interested in everything around her, and relating freely to strangers. She was the first child and her young parents were affectionate, understanding and eager to use the help offered. Unemployment and financial pressures over the next two years left the parents, especially the mother, increasingly more tense and harrassed. Another baby arrived, and soon after the mother took on an evening job to supplement the meagre family income. Tired and irritable from lack of sleep and worries, she became inconsistent and impatient in her handling of Rita, who reacted with nightmares, refusal to wear her hearing aid and temper tantrums. Progress in auditory and speech training, in spite of regular attendance, was almost nil. Unfortunately this situation did not come to the social worker's attention until the time of the next full review of the case by the entire treatment team. Regular casework interviews helped the mother to recognize the connection between her own tension

and irritation and the child's overly demanding and attention-seeking behaviour. Their concern for the child enabled the parents to modify their approach toward him. The mother gave up her outside work after the father had found employment, and, feeling less tired, could be more relaxed and patient with the child. Rita responded well and has becomethe happy, outgoing youngster again. She has accepted her hearing aid and is starting to make progress in the understanding and imitation of speech.

The hearing aid seems to play a significant part in many cases of disturbed parent-child relationship, especially where parents are too strict in their demands on the child. The child retaliates by refusing to wear his hearing aid, and the parents' attempt to force him is met only with increased resistance and hostility. Since the hearing aid is used for the purpose of facilitating the stimulation of the child's residual hearing, his progress in auditory training will likely remain poor.

Ruth's (Case 6) moderate hearing loss was discovered after she had been placed into the home of her prospective adoptive parents at the age of 13 months. Theparents, a mature and accepting couple, nevertheless went through with the adoption, and Ruth has received auditory and speech training for two years with very good results.

Another case in this group provides a good illustration of the interrelatedness of parental attitudes and the child's behaviour and response to treatment. Jerry (Case 5), a child born with seven physical defects beside the severe hearing

disability, has made an excellent emotional and social adjustment and equally good progress in his speech development. His family was described at the time of the initial assessment as "emotionally exceptionally close knit family", and both parents have continued to provide a stable and happy home for their child. The mother was able, in casework interviews, to bring out and work through some feelings of: Why did this happen to me? and has shown especially sound judgment in her loving, but firm handling of the child.

Both families described above (Case 6 and 5) belong to higher income groups and enjoy good living standards. They reside in Vancouver, and their children have received auditory and speech training underthe supervision of the speech therapist at the centre for a period of over two years. The other children in Group I (Case 4 and 7) who have continued to show excellent adjustment, and have made satisfactory progress in their use of hearing and speech in spite of a profound hearing loss, did have neither economic nor geographic advantages. One father had a period of unemployment due to ill health, the other family suffered a temporary financial strain as a consequence of a strike. Both belong to low income groups and have their home in small B.C. communities, one of them fairly isolated. Both families have brought their children to the centre at regular intervals, every three to four months, and have conscientiously

and consistently carried out the clinic recommendations for home training. Family relationships were describedin both cases as warm, relaxed and close-knit, and the parents as completely accepting, understanding, mature and affectionate. The excellent handling of the child by parents and siblings was noted in both cases.

Group II contains five children whose overall adjustment rating at the time of their initial assessment at the clinic was "fair". The behaviour of these children was characterized by immaturity. Dependency and lack of self-control was present to a moderate degree, and could be regarded in four cases as a response to the mother's ambivalent attitude toward the child, in one case as a reaction to the parent's unhappy marital situation.

The overall rating of the five families shows varying scores, ranging from "good" to "poor", and there has been very little change in the family situation after a period of two years. The children's progress or regression in the area of social and emotional development can be seen and explained in direct relationship to parental influences and social environment. In case 12 and 8, where social and emotional environment were unfavourable, both children regressed in their behaviour. Due to the inability and disinterest of their mothers to conduct and follow through a program of hometeaching, progress in aural rehabilitation was poor in both cases. Kenneth's (Case 12) father had deserted and the very young and immature mother had left most

of the responsibility for raising the child to her parents, which probably accounts for this child's fairly satisfactory adjustment. During the first two years of his life Kenneth had had seven hospital admissions, and the local hospital records indicate that signs of physical neglect had been evident on most of these hospitalizations. In spite of her obvious irresponsibility, this mother was not unaccepting of the child's hearing problem, or lacking in warmth, but completely uncapable of following through with speech and hearing training, or of providing adequate physical care for the child. Considerable financial and supportive help was offered by her local social welfare branch, and by a local service club, but all plans for this child's rehabilitation failed due to the mother's inability to participate in an organized way. Even when in Vancouver for the child's treatment sessions, she broke appointments, or simply left the City without an explanation. At her request arrangements with the Children's Aid Society for foster home placement were initiated, but had to be dropped when the mother changed her mind. Two years after the first assessment this very intelligent and alert child had made no progress in speech at all, and had regressed in his behaviour.

Another child, Wendy (Case 9), who also shows regressing behaviour and poor response to auditory training, has, nevertheless, a more favourable prognosis due to the mother's

increasing capacity to look at the problem, and to realize where she has failed in her handling of the child. This capable and intelligent mother, a former teacher, had considerable difficulties to emotionally accept the fact of her first child's hearing handicap, and to work through her feelings of denial. The child's moderate hearing loss, a stable home environment, and warm family relationships, seemed to make Wendy an excellent candidate for successful rehabilitation, and the mother carried out the program of home training conscientiously. Disappointed, however, by the slowness of the child's progress, compared with her experiences in teaching normal hearing children, the mother put increasingly more pressure on the child, and began to regard her as "different" from other youngsters. Wendy reacted to the unreasonable demands with temper tantrums, refusal to co-operate and to wear her hearing aid. The daily therapy sessions became a continuous battle between mother and child, with the resultant loss of any progress made previously. On the occasion of her last visit to the centre the mother had a clear demonstration of Wendy's good response to patient teaching methods, and evidenced an awareness of the part she herself had played in the development of the child's negative reaction patterns.

Kay (Case 10), the child of a warm, accepting mother, and an alcoholic, compulsive father, progressed well in her personal development, especially after her parents separated. Kay remained with her mother, who, in spite of her domestic unhappiness, had maintained consistency and harmony in handling the child, and

continued to provide a stable and warm environment.

The case of Roy (Case 11) is remarkable in so far, as this child in addition to the necessity of acquiring speech and language, is faced with the problem of bilangualism. The son of recent immigrants, Roy grows up in a mainly non-English speaking environment, while having his speech training at the Centre in English. He does quite well in both languages, but the ultimate outcome of this child's rehabilitation will greatly depend on his parent's ability to reach a healthy adaptation to their new country.

All nine children included in Group III presented grave emotional and social disturbances, ranging from completely uncontrollable, destructive behaviour to withdrawal. They come from most unfavourable home situations. Social pathology and disturbed family relationships were present in all nine families. In seven cases marriage relationships were reported as poor, suffering from adultery, desertion and physical violence, in two cases the marriage could be regarded as fair. From five children distinctly rejected by their mothers, two showed signs of physical neglect and were dirty in appearance even when coming for appointments at the clinic. In four cases the mother's attitude toward the child was ambivalent. Three mothers were pregnant at the time of marriage, and from four mothers showing signs of emotional disturbance, two entered into psychiatric treatment

In all three cases, where during the second respectively third year of attendance at the clinic a distinct improvement in the child's social and emotional adjustment, as well as in the home situation took place, the mother's initial attitude towards the child had been one of ambivalence. Two mothers had shown concern, although little understanding of the child's needs, the third was so overwhelmed by many physical, emotional and social problems that her approach to the deaf child was overly harsh and punitive. All three responded to the interest and support offered at the Clinic and showed willingness to modify their approach.

The improvement in one child's behaviour was directly related to the strengthening of the parental relationship, and the interest his father began to takein him. In another case, the clinic was able to involve several agencies in the family's hometown into planning for the child, and this sustained interest and guidance, together with environmental help, resulted in a modification of the parents' approach toward the child.

In the six cases, where no change in the home situation, and no or very little progress in the child's emotional and social adjustment took place, the prognosis for the development of a better parent-child relationship had appeared poor from the onset. Rejecting attitudes toward the child and his negative response to overly harsh, indifferent or dominatingly over-protective handling had become a firmly fixed pattern in these families. A

number of factors precluded any modification of parental attitudes toward the child, the predominant one being gross immaturity of the mothers which prevented them from considering anything else but their own needs and desires. Unable to give the child any warmth and security, they also resisted suggestions to change, or to recognize the damage done to him. It is not surprising that the majority of these mothers has had an unhappy childhood themselves, characterized by disturbed family relationships, by lack of love and security. Arthur P. Noyes declares:

> "The attitude of parents toward the child is greatly influenced by the degree of satisfaction and contentment they have been able to achieve in their own lives. Not rarely the mother carries over into her relationship with her child the unresolved conflicts that arose in her relationships with her own parents. Hostilities and resentments from such a source may enter into a disturbing relationship with her child that has harmful effect on its social and emotional growth and development."[1]

A mother, who was deprived of warmth and security in her own childhood, may find it quite impossible to love a disabled child, which in her eyes is maybe less lovable, less a child to be proud of, a threat to her self-image.

Two of the children born in 1954 in Group III have entered the Provincial School for the Deaf in the fall 1959, without having derived the intended benefit from their pre-school training. Owing to the lack of understanding and co-operation on the part of

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1. Noyes, Arthur P., Modern Clinical Psychiatry, W.B. Saunders Company, Philadelphia and London, reprinted November 1958, p. 580.

the parents, these children have not only lost the opportunity to retain or regain the normal quality of their voice, and to learn communication skills at an age when readiness and ability for speech and language learning are at its height, but they also have been presented from developing normal social and emotional patterns.

Social Handicaps

The case illustrations have demonstrated that serious social stresses in the home situation tend to multiply the difficulties parents encounter in raising a hearing handicapped child. They may greatly affect the development of a good parent-child relationship. Parents are so pre-occupied with worries and the struggle for existence that little time and understanding remains for the deaf child, who is considered as only an additional burden. Moreover, emotional immaturity on the part of the parents often contributes to the development of these social ills.

On the whole, it was found that environmental problems, such as unemployment and financial difficulties, do not have the same negative effect on parent-child relationship as have alcoholism, illegitimacy and mental ill health.

Out of the total sample (42 cases) in this study 29 families, or 69 per cent, showed social maladjustment other than marital discord in one or more areas of living. Unemployment was present in seven cases; severe monetary problems and heavy debts in thirteen cases; poor living standards in eleven cases; poor physical health in twelve cases; poor emotional health in four

cases; absence of one parent due to death, desertion, divorce or illegitimacy in four cases; alcoholism in eight cases, severe cultural differences in three cases; frequent pregnancies in seven cases. Two fathers had had a previous jail sentence; sic of the mothers had been pregnant at the time of marriage; four families had more than one handicapped child.

In eighteen families social ills were present in more than one area. In eleven cases the child was more or less overtly rejected, in six cases mother-child relationship was fair, and only in one case mother-child relationship was close and warm. In spite of a variety of social handicaps in this family, the child was well adjusted and made good progress in auditory training. Thirteen (or 86 per cent of the fifteen cases) of the severely maladjusted deaf children in this study are found in this group of multi-problem families.

In sixteen, or 38 per cent of all cases, severe marital disharmony was reported, alcoholism playing a part in seven of these cases. Ten children, or 67 per cent of the fifteen disturbed children in the study, came from these families. One father had deserted, two had left the families on several occasions but had preferred to return, and were living with their family at the time of the child's referral to the clinic. One of these men was in the home off and on during the course of the clinic's acquaintence with this family, spending some time on drunken spress, alternating with visits to Oakalla and Essondale.

In one case of illegitimate birth among the forty-two cases studied, the child had been raised by grandparents and eventually been placed in a fosterhome in Vancouver. In another case of illegitimacy, the mother had married the putative father after becoming pregnant with her second child; in five other cases the mother had been pregnant at the time of the marriage, giving birth to the handicapped child in two cases, to an older sibling of the child studied, in three instances.

Two other children, born illegitimately, had been adopted, and the placement was considered as a very fortunate one. Both children were emotionally and socially well adjusted and responded equally well to speech and hearing training.

Disabilities in Siblings

Out of thirty-eight families with more than one child, four had two disabled children, and one had four disabled children. This latter case is outstanding insofar as four of six siblings in this family are hearing handicapped, and also present severe disturbances in emotional and social adjustment. Two younger children in this family seem to have normal hearing.

Both parents are completely overwhelmed by the problems the four deaf children constituted. In addition, there are heavy financial problems in spite of the father's moderately secure position and income; the household is described as being in a state of chaos. The result is that the children receive little direction or consistent handling from their parents. The father

has very little time for his family and leaves the responsibility for the children to his wife. The mother is a passive, anxious woman, quick to lose control, easily becoming irritated and angry. No attempt was made to stimulate speech development in the children. The youngsters communicated with each other in an animal-like fashion with screams and grunts, the younger ones copying the behaviour patterns of the older siblings. The clinic record sums up this situation: "Especially poor social, emotional and linguistic environment have greatly complicated the children's problems, with theresult of language difficulties and personality disorders." Because of the emotional disturbances present in all four children, an accurate assessment of their degree of hearing loss was difficult to make.

Re-examination confirmed that Milly, three years at the time of first clinic contact, the youngest of the four handicapped siblings, and a child included in this study, has a moderate hearing loss only; she has average to above average intelligence and ability. Adapted to the mode of communication employed by her three older siblings, however, Milly had no words, and did not use her residual hearing. Since this was an"out-of-town" family, and a program of home teachine alone would never be a realistic, workable plan for this family with four severely handicapped children, alternate provisions had to be made. Arrangements were initiated for one of the older boys to be admitted to Jericho Hill School. Milly, the youngest, and the most hopeful appearing

candidate for rehabilitation, was placed with her grandmother. This served the purpose of removing her from the disturbing influence of the home environment, and of providing for her the individual and special attention which she had never had before. The parents were left with only two deaf children to cope with, the local pediatrician keeping an eye on the situation. Re-assessment of the four children approximately one year after the initial contact revealed that Milly had made more progress than her siblings.

Two families in the sample had two deaf children. In both cases the mother's inability to modify a negative and rejecting attitude hindered any attempts to help these youngsters. Karla (Case 19), was one of the few where overt physical and emotional neglect was present. One older brother had been in a school for the deaf for a number of years at the time of the clinic's initial contact with this family. The mother, having lost her first husband in an accident, had remarried, and there were pressing financial difficulties and heavy debts. Mother and step-father were reported to be alcoholics. The little girl was four years old when referred to the clinic, an excitable, tense, lonely child with tendancies to withdraw. She had a moderate hearing loss, but no speech, and no recognition of speech. Psychometric assessment reported her as falling within the "dull-normal" range of intelligence. Due to the mother's complete inability and unwillingness to accept this child, and to use any help offered by the clinic,

Karla became increasingly more disturbed. Foster home care was suggested by the clinic; but, when arrangements became to slow for the mother's impatience to get rid of the burdensome child, she almost literally "dumped" the child onto the doorstep of a woman she had never seen before, who was reported to have several foster children. In this home Karla withdrew further and manifested severe symptoms of emotional disturbance, as head banging, "rocking", soiling and wetting. Three months later the child was placed into another foster home, and in the fall of the same year, at the age of five, she was admitted to the Jericho Hill School. Karla has attended auditory training regularly for a period of one and a half years, and, in spite of the only moderate hearing loss, has made no progress at all.

Two hearing impaired children of one family (Case 7 and 14) are represented in one sample. Both boys were referred at an early age, 14 months and 12 months respectively, and, being from a small community outside Vancouver they were seen, apart from the initial two week assessment period, for one week sessions two to three times a year since 1955 and 1956 respectively. A comprehensive plan of oral rehabilitation and management was mapped out for the parents and hearing aids fitted. The mother was taught the fundamentals of hearing and speech, and the stimulation of residual hearing in the children was stressed. On return visits to the clinic the children received one week of intensive auditory training, and the mother had an opportunity to discuss all training

and management problems with the speech thereapist and the social worker. The public health nurse in the parents' home community, in close co-operation with the social worker at the Health Centre for Children, assisted and advised their mother on all emerging difficulties, and arranged the return visits to the centre.

In spite of the early referral, the careful planning, and the considerable and sustained effort on thepart of all team members, both children made no progress in their speech development, developed behavioural disturbances, and became increasingly harder to manage.

This case gives a clear demonstration of the important role the parents play in the rehabilitation of the hearing handicapped children, and of the influence of parental attitudes and social environment on the personality development of the deaf child. Inconsistent handling by a resentful, anxious, ineffectual mother of limited intellectual capacity, and overly harsh disciplinary treatment by an over-critical father, undermined all outside attempts to help these children. The relationship between the parents was a distinctly unhappy one, and chaotic household management, as well as frequent physical illness in the family, contributed to enhance the attitudes of inadequacy and basic rejection these parents felt towards their children.

It is interesting to note that Chris, the older boy, who had been a "planned" baby, constituted less of a behaviour problem than William, who was an "unwanted" child and more or less

rejected from birth on. In another case, the sibling of the child included in the survey was a spastic child; here too the hearing impaired youngster demonstrated behaviour disturbances, and parental attitudes were most unfavourable to health, social and emotional development. Only in one case of two disabled children, a good mother-child relationship was present, which was clearly reflected in the youngster's behaviour and immediate response to therapy.

These five cases, by no means conclusive, seem to indicate that in families with more than one handicapped child the chance for a successful rehabilitation of the hearing impaired youngster are less favourable than in families where only one child needs special attention. It is difficult to assess whether these parents would have been able to accept and cope with the problem of one disabled child, and were overwhelmed by the task of raising two handicapped children, or whether they were basically uncapable of developing love and understanding for the "imperfect" child. The writer is inclined to accept the latter. The distinct accumulation of social ills in all five families raises questions also as to relationship of cause and effect. Are the children's physical problems enhanced by the social pathology adherent in their families, or have social difficulties and marital discord arisen as a result of the presence of two or more disabled children in the household? The material is too small to allow for more than a tentative suggestion, and a much more extensive study would

be necessary, but it appears that there is a tendency on the part of some parents to project feelings of inadequacy onto their handicapped child, and to blame him for their own inability to copy with the problems of every-day living. On the other hand, the making of rush judgments, and the adoption of a critical attitude toward the parents, has to be avoided. If they feel that they are made responsible for every difficulty that arises during the course of treatment, their feelings of personal inadequacy and insecurity may increase, and have an even more damaging effect on the child. The parents may become defensive and hostile, even withdraw the child from training; or they may, in an attempt to please the therapist or social worker and to prove that they are a "good parent", become overly anxious, overly conscious of every move. This in turn will result in a loss of warmth and spontaneity in their approach to the child, in more inconsistent and erratic handling, and in over-protection and emotional rejection.

The Role of the Parents

The prerequisite for parents to be able to help their hearing handicapped child is their acceptance of him. This means that they will have to work through a lot of feelings, fears and anxieties first, and it is important for them to realize that all parents experience these feelings, and that their absence rather than their presence is unusual and alarming. Unless a child suffered an infectious illness known to affect hearing, or other handicaps are present often associated with hearing loss, parents may not be aware of their child's hearing impairment until his lack

of response to sound, or his failure to imitate speech, becomes evident to them. Most parents go through a period of considerable uncertainty and worry before they take their child to a physician. Testing the child's hearing with all kinds of devices - from the rattling of pots to the ringing of an alarm clock behind his crib - they are convinced one day that the child can hear, and in grave doubts about it the next. Unfortunately, it is difficult in many cases to establish an accurate diagnosis, unless a child is brought to a specialist or to a hearing centre, and frequently parents are told that there is nothing wrong with their child's hearing, that some children are slower in acquiring speech than others, etc. Whether the result of this first examination dispells the parents' fears or not, the immediate reaction after the true diagnosis has finally been established is almost always one of shock and bewilderment. The first phase of numbness might be followed by one of resentment and anger against a cruel fate, which allowed this to happen to their child. Many misconceptions and traditional beliefs associating hearing impairment with mental retardation, with "deaf" and "dumb" and the conviction that nothing can be done for the child, tend to torment the parents, and the more or less well-meaning advice of various relatives and friends only adds to their despair and confusion. Often a husband and wife tend to blame each other, citing examples of a deaf relative in the spouse's family, or the obstetrician and the hospital is made responsible for the child's handicap. Shame and guilt find its expression in self-blame, and are frequently

excessive and unrealistic. The child's deafness is perceived as a punishment for a real or imaginary sin, or for not having wanted the baby. Some parents consult several otologists and pediatricians before they are able to intellectually accept the diagnosis of hearing loss, and to appreciate that, although normal hearing cannot be restored, much can be done to help the child toward a useful and happier life. Many mixed feelings may persist before the parents will be capable of fully accepting their child, and be responsive to consider his needs and the meaning of the handicap to him.

The development of accepting and positive attitudes will depend on the parent's ego strengh, their level of emotional maturity, and on many factors in the environment which may have positive or negative effects on child-parent relationship. The feeling that a handicapped child constitutes a threat to their own self-image, a demonstration of their failure to produce a perfect child, renders many parents unable to consider the deaf child as a child first. They focus on the handicap and on the feelings this imperfection arouses in them. The result is either denial of the handicap, overt rejection of the child, or, more often, a smothering over-solicitude and over-protectiveness as an attempt to cover up, deny or repress negative and unacceptable feelings. The mature parent who has accepted the child and the handicap in a warm and realistic way, does not feel threatened and guilt-ridden if the occasional twinge of resentment or discouragement crops up at times when progress seems slow. They acknowledge that problems exist and that regression can take place, but their love and understanding for the child, their enjoyment of him and his growing independence, outweighs

these moments of disappointment and turns them into a challenge. Dr. Helmer R. Myklebust in Your Deaf Child, a book written as a guide for the parents of deaf children, uses a broad classification to group parental attitudes towards a deaf child.

"1. Attitude of acceptance.

2. Attitude of over-protection, which he describes as "not expressions of real love", but an attempt to conceal real feelings and a way to prevent other people from recognizing these.

3. The wishful attitude,which denies the existence of the handicap, and ignores any difficulties and limitations hearing loss may present. They, therefore, may expect standards of performance and behaviour unattainable by the child.

4. Attitude of indifference, which is described as the inability to feel affection for the child, and is frequently combined with frank hostility and open neglect of the child."[1]

Acceptance of the child, insight into his needs and an understanding what the hearing loss means to him, will enable parents to regard the deaf child as an integrated member of the family group with equal responsibilities and privileges. These will have to be in accordance with the restrictions the handicap impinges on the child, "the integration of any deaf or hearing child into the framework of family life is and should be directly brought about by his dependence upon and relationship with his parents and other members of his family."[2]

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1. Myklebust, Helmer R., Your Deaf Child, Charles C. Thomas, Springfield, Illinois, 1950.

2. Ewing, Irene R., and Ewing, Alex W.G., New Opportunities for Deaf Children. Univ. of London Press Ltd., 1958. p. 2.

This principle is regarded by Professor and Dr. Ewing as a fundamental one. His limitations have to be recognized, accepted, and reasonable goals set, but he should be expected and encouraged to do all the things which are normal for children his age, and not dependent on hearing.

An important rule in the training of a young child is consistency of handling. In the case of a young deaf child this becomes an even more essential principle, one on which success or failure of the whole training - and rehabilitation program greatly depend. The observation of consistency in the child's daily routine, in showing affection, in discipline, and in teaching, will make many daily, forhim unconnected, happenings more meaningful, and transmit to him a sense of security. His auditory training should be begun as soon as his diagnosis has been established. In order to effectively stimulate residual hearing and speech development, there should be a consistent daily program of speech training at home. The pre-supposition to successful training and teaching is a warm parent-child relationship, consistent handling,and sufficient intelligence on the part of the parents to understand the reasons for daily speech training. Dr. and Mrs. Ewing state as one of the principles for successful training:

> "The method that the writers have found to give best results with children under five years of age is a developmental method which follows as closely as possible, step by step, the stages through which an ordinary child approaches speech and learns to talk. The avenues of approach are not identical, but the prime factor is the relation-

> ship between the child as he matures physically and mentally and the people in his home. Other people, especially his parents, must contrive for him day by day opportunities and incentives that will lead him to understand speech and to talk."[1]

Over concern with the child's communication problem, and the attempt to force speech development by rigidly applied lessons, is just as damaging to the child as indifference, inconsistency, or an overly harsh approach in carrying out his program. The latter should be in accordance with the child's age, ability, and degree of hearing loss, and for the young child game-like and informal rather than highly organized and inflexible. The happy child, the child who feels wanted, accepted, important to his family, and whose emotional needs are met as well as his physical, will, if stimulation is provided, have the willingness and the desire to develop and use communication skills. In order to be effective, a program of speech and hearing training has to be understood by the parents as what it is: only a part in the total program of rehabilitation which aims at the development of a socially, emotionally and intellectually well integrated personality. Keeping this in mind, the physical aspects of the training program will not become an end in itself. Dr. Myklebust stresses this fact when he says:

> "One of the primary concerns of the new understanding of the deaf child should be the total happiness of that child. Happiness comes from freedom from anxiety, guilt, and

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1. Ewing, Irene R. and Ewing, Alex W.G., "New Opportunities for Deaf Children", University of London Press Ltd., 1958, p. 69.

> insecurity. It is apparent that the deaf child must be assured over and over again that the real world is allright. He must be assured and reassured. He must be told and retold. He must be made to feel that he and the real world are allright, and that he has a place in it. In order for him to feel this, his parents and his teachers must feel it."[1]

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1. Myklebust, Helmer R., "Towards a New Understanding of the Deaf Child", American Annals of the Deaf, Vol. 98, No. 4. September 1953, p. 357.

Chapter IV

SERVICES FOR THE PRE-SCHOOL DEAF CHILD

The preceding material of this study makes it very clear that deafness is far more than an organic handicap. It does not mean simply that such a person cannot hear - or, in many cases, is unable to speak. Deafness handicaps the emotional, social, and intellectual development of the person afflicted in a very special way; if not treated early with all the methods available to modern otology, it may lead to serious maladjustment in these areas. It is not only the total organism which is involved, but the relationship of the organism to his environment. Dr. Helmer R. Myklebust calls deafness "a significant and consequential sensory deprivation"[1], one which "causes the individual to behave differently"[2]. In a paper presented at a meeting of the convention of American Instructors of the Deaf in June, 1953, Dr. Myklebust put the situation in terms which are worthy of extended quotation:

"When a basic sensory privation, such as deafness, occurs," says Dr. Myklebust,

> "The organism must make changes in its functioning in order to meet the environmental demands and to survive. Deafness does not simply cause an inability in verbal communication. It causes the individual to see differently, to smell differently, to use tactual and kinesthic sensation differently. And perhaps more important than all of these, but because of them, the deaf person perceives differently. As a result of all these shifts in functioning, his personality adjustment and behaviour are also different."[3]

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1. Myklebust, Helmer R., "Towards a New Understanding of the Deaf Child", American Annals of the Deaf, Vol 98, No. 4 September, 1953, p. 347.

2. Ibid., p. 347.

3. Ibid., p. 347.

He goes on to assert this general formulation even more concretely:

> "To say that the deaf person is like the hearing person except that he cannot hear is to over-simplify and to do an injustice to the deaf child. His deafness is not only in the ears, it pervades his entire being. Important as ability to use spoken and written language may be, the new understanding must emphasize that we are missing the basic effect of deafness when we do not see the much more pervasive manner in which deafness is consequential."[1]

Fortunately, this growing awareness of the total effect of deafness has led in recent years to a broader approach to the problem. Stress is put on early diagnosis, and also on the development of treatment programs which focus on the whole personality instead of being limited to the area of hearing and speech alone. Early family experiences are all-important for the growing personality, so that admission to a residential school for the deaf as early as possible is not the whole answer. Of course severely and profoundly deaf children need the special formal education which only a school for the deaf can provide; but training and encouragement during the first five years of life should also be given, and as far as possible within the framework of the family. Clinics are needed, but they cannot do the whole job. Parent education and counselling are vital components in the total treatment of the hard-of-hearing child.

With the growing interest in children with hearing handicaps an ever widening circle of auditory centres and special clincs has been set up, to provide help and guidance to thepre-school child and his parents. Within the total rehabilitation plan, including prevention, diagnosis and treatment, the promotion of good mental health must be kept constantly in view. The ultimate outcome of any training program

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1. Ibid., p. 347

regardless of the severity of hearing loss, will in the last analysis depend on the parents; and this means not only (a) their ability to use help constructively, but (b) their feelings toward their handicapped child. Parental attitudes and feelings powerfully affect the child's acceptance of himself, his ability to relate to his environment, and his reactions to future experiences. It thus becomes part of the treatment team's total responsibility toward the child and his parents (a) to help parents with their many conflicting feelings, to reduce their anxieties and sometimes feelings of guilt, and (b) to give them an objective and honest account of possibilities and limitations.

Dr. Myklebust found that knowing the cause of the child's deafness helps many parents to accept the handicap more readily, and prevents their searching for a more favourable diagnosis.[1] The knowledge that help is available, that their child has a future in spite of the handicap, lifts from the parent the feeling of helplessness and hopelessness which would otherwise depress them, and encourages them to participate actively in the training process. The clinic is not intended to provide the whole program of course; it can only be a part of it. Unless training methods are applied at home, wherever possible supported by auditory and speech lessons given at the clinic, little will be achieved. On the other hand, unless the parents thoroughly understand the child's problem in the light of his total development, specialized training will be unsuccessful. It is for these reasons that a careful psycho-social appraisal becomes an essential part of the total diagnostic evaluation. The social worker's knowledge of the family's background and present situation, her observations of

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1. Myklebust, Helmer R., Auditory Disorders in Children, Grune & Stratton, New York, 1954.

parent-child interaction, can give important clues to the understanding of the child's behaviour. Social, financial, and environmental difficulties of one kind or another may prevent the child's healthy adjustment; emotional deprivation may be present in spite of excellent physical care provided; parents may be emotionally and intellectually incapable of carrying out all that is needed for a program of rehabilitation. Each case is different and has to be assessed and planned for in the light of its individuality: services have to be adapted to these differences.

Types of Auditory Disorders

Not all the children referred to an auditory centre are deaf, hard-of-hearing, or unable to communicate verbally, have an actual hearing loss. Mental retardation, psychic deafness, or aphasia - the inability to interpret the sounds heard - these frequently present the same picture as the peripheral deafness. Only a carefully formulated differential diagnosis, based not only on clinical findings and birth history, but on the behavioural symptomatology characteristic for each condition, can determine the true nature of the child's failure to respond to sound and to imitate speech. In the not too recent past, the majority of these children, especially the aphasic and the schizophrenic or autistic types, were classified as either "deaf and dumb" or as mentally retarded, and referred to the respective institutions. The existence of audiology centres with modern testing equipment and specially trained personnel makes it possible to diagnose the different types of auditory disorders much more accurately, and to prescribe treatment in accordance with the special needs of each group. One of the byproducts is that a higher incidence of aphasia

and psychic deafness is due not to their actual increase, but to improved methods in recognizing these conditions.

From the forty-nine children in the present review six or twelve per cent suffered from an auditory disorder not due to a peripheral hearing loss. This group was excluded from the case material presented in the preceding chapters. Children with auditory disorders due to aphasia, psychic deafness and mental deficiency face different adjustment problems and have training needs different from those of children with perceptive or conductive deafness. The most common types of emotional disturbances associated with auditory and speech disorders are (according to Dr. Myklebust) the child with schizophrenia, and infantile autism.[1] Psychotherapy, employing non-verbal techniques, is here the treatment of choice. Few special treatment programs have been developed for the aphasic child, whose main adjustment problem is one of integration. Myklebust complains that "society, in general, has not provided for these children"[2], and management is mainly left to the parent. More research and specific educational programs are needed here.

Influences on Progress

In this study the purpose has been to explore the influences which may promote or inhibit the healthy development of the hearing handicapped child in his pre-school years.[3] Although by no means conclusive, the findings indicate:

(a) There seems to be considerable evidence of a connection

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1. Myklebust, Helmer R., Auditory Disorders in Children, Grune & Stratton, New York, 1954.

2. Ibid., p. 354.

3. Some related influences in the later "school age" years are the subject of the companion study by Miss Joanne Brown.

between social environment, especially parent-child relationship, and the deaf child's social and emotional adjustment. His personality and pattern of behaviour, as might be expected, are greatly influenced by his parents feelings toward him. Wholesome parental attitudes will have a favourable influence on the child's growth and development, while indifference and rejection leave him apathetic or rebellious, and at worst may lead to serious maladaptation.

(b) Effectiveness of treatment depends on the degree of motivation the child has to become a participant in the training process, and to acquire communication skills. Unfavourable parental attitudes may thwart the child's willingness to learn. The disadvantaged child derives little or no benefit from auditory and speech training, unless parental attitudes can be modified.

(c) A number of personality and environmental influences may determine the parent's ability to "accept the handicapped child. Factors such as the following were separated out in some degree, and shown to have bearing on the development of sound parental attitudes. Certainly they should be considered and further refined in treatment planning:

(1) Emotional maturity of the parents

(2) Intellectual capacity of the parents

(3) Stability of the marriage and of family relationships

(4) Absence or presence of social handicaps (detailed in Chapter III)

In cases where negative feelings were firmly fixed, or environmental stresses and strains created an almost complete barrier to normal living, the chances for a successful modification of parental attitudes were small. Parents whose lack of understanding

was due to confusion, ignorance, anxiety or feelings of guilt rather than to rejection of the child, often responded well to casework counselling and support. In some cases, arrangements for financial support freed parents so that they could face the child's problem more objectively, and strengthened their positive attitude toward him.

The above are some of the "dynamics". A number of general variables seem to be indicated as having an influence on the child's ability to respond to treatment and these can be listed:

(a) The age of the child at the time of referral.

It is highly desirable that auditory training should be started at the age between one year and twenty-four months, which is the time of readiness for speech and language acquisition. The child's development will follow more normal patterns and many of the frustrating experiences, leading to social and emotional maladjustment, may be prevented. If training has to start past the age of three or four years, negative behaviour patterns are often firmly fixed and may interfere seriously with the child's response and willingness to learn.

(b) The severity of the child's hearing loss.

The degree of hearing loss is an important factor in diagnosis and treatment planning. Different methods have to be employed in teachingthe profoundly deaf child

the severely deaf child, or the youngster who has a moderate hearing handicap. Early diagnosis is here the essential factor, also. It is being increasingly recognized that the majority of children have some residual hearing, and this can be aided by amplification if begun early. The case material of the present study seems to indicate, however, that the extent of a child's disability depends not only on the degree of his hearing loss but on his feelings about it. These in turn may be a reflection of his parents attitudes toward him. Several of the children in this survey have made good progress in auditory training in spite of a severe or profound hearing loss. On the other hand, for some children with only a moderate loss, negative behaviour patterns have interfered with learning, and the child has derived little or no benefit from training.

(c) Residence and availability of community resources. Children whose families reside in the city where the clinic is immediately available (in this case Vancouver) have the advantage of receiving regular lessons by the clinic speech therapist, in addition to home teaching. Parents can discuss their children's progress or lack of progress, with the therapist, and with the social worker. The "out-of-town" child's contacts with the clinic are restricted to two to four yearly visits and to a program of home training. Home training could

be developed and perhaps could be done, e.g. by radio programs, etc. if research money could be spent on this. Nevertheless, parents can, of course - and frequently do - send their children in from large distances. Some parents have moved into town, sometimes at considerable cost, for the benefit of their child. Easy accessibility to the clinic can be an important factor in the child's rehabilitation if a parent needs casework help or is intellectually and emotionally incapable of applying home teaching methods consistently. Geographical distance does not have to be an obstacle to successful rehabilitation. If parents have thoroughly accepted the need for it and understood the methods to be applied, their children will progress quite well. In many cases community agencies have been successfully included in the overall treatment program, or parents have written to the clinic for information and advice.

(d) <u>The intellectual endowment of the child.</u>

Children are admitted to the pre-school hearing program only if their hearing loss is their major handicap. Children with the additional problem of mental deficiency would not benefit from the rehabilitation program provided, and need different training. However, differences in intellectual ability enable some children to respond more readily to auditory and speech training than others. The records indicate that in cases where the home provides poor learning opportunities and inadequate

stimulations, the child has difficulty in living up to the potential of his intellectual capacity.

All these variables may play a part in the rehabilitation of a particular child. However, the major pre-requisite to the sound overall adjustment of the hearing handicapped child is his parent's wholehearted acceptance of him. The need for early referral cannot be overstressed.

The Social Worker in the Treatment Team

The social worker as a member of the diagnostic and treatment team helps the parents toward a better understanding of their handicapped child, and in some circumstances, to better acceptance of him. The casework approach is based on the belief in the individual's potential for growth and change. In giving recognition to the many difficulties that parents face in raising a deaf child, and in considering parental needs as well as the child's, the worker encourages the parent to discuss his worries and fears with her. Anxieties centre on many problems related or caused by the child's hearing loss, as well as on difficulties not directly related to a good parent-child relationship, but nevertheless precluding it. A common source of anxiety is the diagnosis itself, the cause and extent of the hearing loss, and the implications the child's disability has on his development. Many parents have little or no conception of how a deaf child can be taught and what can be expected of him, and it is understandable that they should express fears of mental retardation. They may have seen deaf adults communicate by sign language and assume that this is all their child will ever learn; or they may hope that the use of a hearing aid will

magically transform their deaf child into a hearing one. Again, some parents have difficulties in accepting the hearing aid, and regard it as a symbol of their inability to produce a perfect child. The child's rejection of the hearing aid - which frequently occurs - can be a projection of his parent's feelings; and if these remain unrecognized, they may determine the child's future attitude toward his handicap. It is important that parents receive repeated instructions on the use of the hearing aid and are familiar with its advantages, as well as its limitations.

A source of common concern to parents is that of the management and training of the deaf child. Apart from the problems concerned with the actual communication, anxiety about behaviour difficulties and habit disturbances is expressed by many parents, and questions are raised in connection with discipline. Feelings of inadequacy and insecurity in the face of a seemingly overwhelming task lead frequently to inconsistent handling of the child. Parents are apt to be either too permissive - setting no limits at all - or else too rigid in their demands. Equally, parents may have either little conception of the limitations which deafness imposes, or may focus excessively on the handicap.

It is the social worker's task to encourage the parents to express all these worries and concerns. She helps them to understand that not only their anxieties and doubts, but also their reactions of anger or resentment, are normal, and experienced by most parents of handicapped children. This understanding and acceptance releases the parents from the heavy burden of guilt which is so frequently the cause underlying a disturbed parent-child relationship. It frees them to

think of the deaf child as an "ordinary human", to consider his needs, and, perhaps for the first time, to visualize a future for him.

As a member of the multi-professional team the social worker's role goes far beyond the compilation of a social history, and even beyond the provision of casework services. She acts as a liaison person between the medical staff and the parents. For many mothers, expecially when coming from remote communities, attendance at the clinic is a first experience with a large medical centre. The strangeness of the physical surroundings and the complexity of the diagnostic procedures are often confusing, adding to the considerable emotional strain many mothers undergo when coming to the clinic. They may feel self-conscious in dealing with the doctors, and anxious to have their children perform well in the different test situations. Accordingly, the social worker is the first member of the team to meet mother and child when they arrive at the centre. She explains the services, the aim of the program, and helps them to find their way around. To the social worker the mother unburdens worries, fears, feelings of guilt and inadequacy, and the doubts relating to the future.

It is not surprising that many parents come to identify the worker with the program, write to her seeking advice, and reporting the progress their children make.

There is still much to be done. In the Vancouver pre-school program heavy caseloads make it impossible for workers to follow up all cases as closely as is necessary and desirable. Continuing casework services, in the case of Vancouver residents, can only be provided for mothers most urgently in need of treatment. Due to the rapid expansion of the program, the present physical facilities have

become inadequate, and additional space for offices and diagnostic facilities is needed. This problem has partly been solved when in March 1960 the therapy unit and the nursery school were moved from their crowded quarters to a new location.

Also, some modification in the present hospital policy restricting social work services to the hospital only, would be highly desirable. Home visits would be an invaluable aid in assessing the social situation and in obtaining a more accurate picture of family interaction. A deaf child's siblings are rarely, if ever, seen at the clinic. Yet brothers and sisters are, next to parents, the most important persons in a young child's life. The deaf child's mode of relating to his parents and siblings will reflect the degree of acceptance he is experiencing, and his perception of the world as a friendly or a hostile place. Observation in the child's own home is the social worker's most diagnostically important information.

Questions Demanding further Research

The material analyzed and presented in this study is limited to a relatively small number of cases. The findings indicate only a few of the problems which have to be dealt with in working with the young deaf child and his parents. One task of this thesis was to show how the material available can be better organized and used for exploratory purposes. More intensive research would be required to answer some of the questions which arise out of the present study. Some of the special aspects, specifically excluded, have already been mentioned; for example, auditory disorders such as aphasia and psychic deafness offer an important field of research, not only for the medically trained person, psychologist, or educator, but for the social worker.

The high incidence of social pathology observed in some of the families of deaf children in this study would need further investigation and more extensive case material. The question can be raised: "Is there a higher incidence of social handicaps in families with deaf children, or is there a particularly sizeable group of maladjusted families who find their way to the (free) services provided by the clinic?" According to available information approximately 95 per cent of the hard-of-hearing pre-school population in B.C. is, or has been, included in the pre-school hearing program of the Health Centre for Children. These figures refer to children who require specialized services in preparation for either attendance at a regular school or at a school for the deaf. They do not include those cases of mild or marginal hearing loss, which rarely come to the attention of a speech and hearing clinic or an audiology centre. These statistics seem to rule out the assumption of the clinic serving primarily a maladjusted clientele, although the possibility can not be negated altogether. Every new service must cope with the backlog from previously neglected cases, and the pre-school hearing program is only six years old.

An area not covered in this thesis and needing further exploration concerns the problem of the late referral (contact with specialist, etc.) What are the reasons for the delayed referral, not only to a speech and hearing clinic, but to a pediatrician or otologist? Is there a possible connection between late ascertainment of the hearing loss and maladjustment in the family?

Community Awareness of the Problem

The program developed at the Vancouver Health Centre for Children

has already been outlined (Chapter I). The increasing number of yearly referrals to the centre indicate a growing awareness on the part of general practitioners and social agencies of the existing services. "Self-referrals" are not uncommon. The importance of early rehabilitation of the hearing handicapped child receives increasingly more recognition. Improved testing techniques for the infant and young child as well as the establishment of travelling audiology units, serve to bring more and more children to the attention of specialists, and ultimately to the pre-school hearing program. This means that an increasing number of young children will be included in the training before too many frustrating experiences have had a serious influence on normal social and emotional adjustment. Parent education and guidance, started early, may prevent the development and fixation of negative attitudes toward the child, and greatly relieve anxiety and tension in the home. The nursery school, which since its opening in the spring of 1959 has been a part of the pre-school hearing program, has contributed much to the socialization of the young deaf child. For many of them this is the first experience in a group, their first contact with the world outside the narrow confines of home and immediate neighbourhood. The nursery school, however, is not an end in itself. It is a means toward the integration of the young deaf child into a hearing world. Children move on from the nursery program into regular kindergarten; and, as in the case of the young blind child, they have demonstrated that their handicap is not a barrier to normal interaction with other children. Indeed, kindergarten teachers, apprehensive at first about the new experiment, have found the presence of the deaf child in

a hearing group to be an enrichening and stimulating experience.

The enrollment of a selected group of hard-of-hearing children into public school classes has been another major step toward integration. Well adjusted children with only moderate hearing loss and previous training in speech and hearing can be taught in regular schools with considerable success. The use of a hearing aid and preferential seating in the classroom enables them to participate in normal curriculum activities, and to achieve good scholastic standards. The value of special classes for hard-of-hearing children in public schools remains still to be seen. Using the same facilities, this group nevertheless is segregated from the rest of the school population, which might enhance instead of diminish insecurity and the feelings of being "different".

Community education, as part of the complete program of hearing rehabilitation, might gradually lead to the increasing acceptance of deaf children by their hearing contemporaries and their parents. That it is possible to have deaf children enrolled in public schools at all, is a step in this direction. It indicates a growing awareness on the part of the community that segregation and special education does not meet the needs of all these children. The pre-requisites for the successful participation of the hard-of-hearing child in normal school activities is a pre-school program including auditory and speech training,combined with lip reading if necessary. This early and special education is now provided through the pre-school hearing program at the Children's Health Centre. Its institution met a community need which in the past has caused much concern to parents, and to all professions involved in the welfare and care of deaf children. Failures, which are inevitable, have been by far outweighed

by the many cases of successful rehabilitation. Children were enrolled in public school classes, who, without basic training, would receive their entire education at a school for the deaf. Hopeful candidates for regular school attendance were, in some instances, retained in kindergarten for one additional year.[1] These children will enter a public school in the fall 1960 at the age of six years. Others have been admitted to Jericho Hill School more mature and better equipped in their understanding and use of speech, than children without any previous training.

New Opportunities for Deaf Children

Deaf people, if given early in life the emotional, social and educational experiences essential for normal development, can make a satisfying adjustment in spite of their handicap. Helmer R. Myklebust says in this regard:

> "Emphasis on the pervasive effects of deafness should not detract from the achievements of the deaf. It is a tribute to deaf people that despite these effects they continue to be effective contributors to society."[2]

Dr. and Mrs. Ewing give several case histories which illustrate the enormous importance of early training and of parental acceptance. In New Opportunities for Deaf Children, a book replacing the former work Opportunity and the Deaf Child published in 1945, eight parents give an account of their children's lives. These children, with one exception, are profoundly deaf, and were known to Dr. and Mrs. Ewing from infancy and early childhood on. The authors write about the

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1. Age of enrollment at Jericho Hill School is five years.

2. Myklebust, Helmer R., "Towards a New Understanding of the Deaf Child", American Annals of the Deaf, Vol. 98, No. 4, September, 1953, p. 356.

parents:

> "In every instance there was a realistic acceptance by the parents of their child's deafness, although at first it had come as a shock to them. All of the parents showed resolution in undertaking responsibility fortheir child's training in the home. They were determined to prevent dumbness from ensuing as a result of the severe deficiency of hearing from which all these children suffered."[1]

Six of the children, now at school age, give every indication of growing up to be responsible, well adjusted adults. One older girl, though profoundly deaf,has passed her entrance examinations for admission to a dental school (King's College Hospital, London) for training as a dental surgeon. The most outstanding account of persistence and fortitude is given by a partially deaf research chemist, now aged 38, and known to Dr. and Mrs. Ewing since the age of four years. He earned his Ph.D. in chemistry at the age of twenty-seven years, and now holds a responsible post as an industrial chemist.

These are exceptional examples. But they illustrate that the equation of "deaf" with "dumb" should be a concept of the past. Given the opportunity, a deaf child can live up to the potential of his intellectual capacity, and lead a happy and useful life. The knowledge and understanding gained during recentyears is based on a realistic appraisal of the limitations deafness entails, and of the means these limitations may be dealt with. Dr. Myklebust's statement may be taken as a credo for the social worker, if our extra incentive were needed:

> "There is no area of endeavour which is more rewarding

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1. Ewing, Irene R., and Ewing, Alex W.G., New Opportunities for Deaf Children, University of London Press Ltd., Warwick Square, London, E.C. 4, 1958, p. 93.

than that of working with deaf children. Much progress has been made. Through the new understanding critical steps of progress during the next few years are assured. Study and understanding of the deaf child will continue to be revealing and meaningfull to the understanding of all children and to the understanding of human behaviour in general. These are some of the rewards of working toward a new understanding of the deaf child."[1]

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1. Myklebust, Helmer R., "Towards a New Understanding of the Deaf Child", American Annals of the Deaf, Vol. 98, No. 4, September, 1953, p.357.

Appendix A

Schedule 1. Suggested Criteria for Evaluation of Emotional and Social Adjustment

Criteria	Explanation of Ratings		
	Good	Fair	Poor
1. Physical Development	Healthy, normally developing child. No serious illness.	Healthy child. Normal development once interrupted by serious illness; or, physical development slightly retarded.	Slow physical development due to frequent illness, or several incidents of severe illness; or, impairing disability other than hearing loss.
2. General Intelligence (a)	(superior)	(average)	(dull normal, or slightly retarded).
3. Mental Alertness	Bright, active, quick understanding. Ability to adjust easily to new situation.	Alert child, but easily frustrated; or somewhat slow in adjusting to new situations.	Dull, slow in response and understanding; or, withdrawn and daydreaming.
4. Emotional Development	Well balanced, contented and relaxed. Acts his age.	Easily frustrated, regresses when faced with new a. difficult experience, short concentration span.	Very immature; or, shows symptoms of emotional disturbance.
5. Self-Assurance	Independent, secure in relationships, trusting. Persistent and goal directed when trying to perform set task.	Easily frustrated, demanding and attention seeking, whiny; or, shy and self-conscious.	Overly dependent and clinging. Extremely shy and anxious; distrustful and fearful in relationships.

(a) Determined on the basis of tests administered by the Metropolitan Health Committee.

Schedule 1. continued

Criteria	Explanation of Ratings		
	Good	Fair	Poor
6. Self Control	Relaxed and secure in relationships, able to postpone immediate wish fulfillment;able to accept limits.	Temper tantrums when frustrated, but does not present serious behaviour problem; or, too controlled due to fear.	Severe temper tantrums on slightest occasion; completely uncontrolled anduncontrollable;destructive; or, rigid self contrd, severe withdrawal.
7. Happiness	Happy, friendly, outgoing and trusting child.	Changing moods; often whiny and dissatisfied, or stubborn and defiant.	Negativistic and hostile; or, extremely withdrawn and unresponsive.
8. Relationship with Mother	Warm and relaxed. Feels loved and wanted; responds with love and affection.	Shows not too much spontaneity in relationship with mother; or, demanding; constantly attention seeking.	Negativistic and resentful toward mother,or withdrawn. Complete lack of communication, warmth, and understanding between mother a. child.
9. Relationship with Siblings	Mutual acceptance and affection; feeling of belonging together.	Ambivalence expressed by either reaction formation, or by resentment alternating with acceptance and tolerance.	Extreme sibling rivalry.Jealous and deeply resentful.Constantly competing for parents attention.
10. Ability to relate to other Children	Outgoing and friendly with children;relates easily. Cooperative in play and sharing. Assumes leadership role,but able to accept leadership of others.	Quarrelsome,does not like to share; or, shy,slow in making friendships, only able to relate to small group of children.	Hostile,aggressive, and disturbing in play with other children.Likes to attack younger children;or, unable to establish rapport with children;fearful, withdrawn.

Schedule 1. continued

Criteria	Explanation of Ratings		
	Good	Fair	Poor
11. Ability to relate to Strangers	Trusting, outgoing child, friendly, easily relating to strangers.	Shy and inhibited, or resentful, but able to relate gradually if shown continuing friendliness and interest.	Negativistic and hostile toward strangers; or, withdrawn in presence of strangers.
12. Response to Social Stimulation	Outgoing and friendly; relates quickly to new environment and new experiences.	Shy, but interest and attention can be aroused.	Remains negativistic and withdrawn, unable to relate to his environment.
13. Cooperation (Clinic)	Very cooperative, eager to please, trusting.	Initial resentment or shyness; cooperates fairly well after becoming familiar with clinic and clinic staff.	Extremely uncooperative, resentful and hostile; or withdrawn.
14. Willingness to learn (New Experiences.	Eager to learn; to explore; curious and inquisitive.	Slow or inconsistent in response to learning experience; easily distracted or frustrated.	Completely unresponsive; no motivation to gain new experiences.

Schedule 2. Suggested Criteria for Assessment of the Family

Criteria	Explanation of Ratings		
	Good	Fair	Poor
1. Income	$4800.- or more, steady income.	$2400.- to $4800.-	Less than $2400.-, in receipt of Social Assistance, or Unemployment Insurance. Living on marginal income.
2. Employment	Good work record. Permanent employment with possibilities for advancement.	Employed, but employment subject to change, depending on general employment situation.	Unemployed; seasonal employment only; poor work record.
3. Housing	Comfortable, spacious home.	Adequate from hygienic, although not from aesthetic point of view. Does not allow for too much privacy.	Crowded and inadequate living quarters.
4. Education	College- or university education.	Highschool graduate.	Partial highschool education or less.
5. Socio-Economic Status	High standard of living, recognized social position.	Living in fairly comfortable circumstances. White collar occupation.	Low-status occupation, low income, limited possibilities for advancement.
6. Marital Relations	Harmonious, happy marriage, mutual affection and respect, sharing of interests, goals, and responsibilities.	Some evidence of marital conflict, spouses do not always pursue same goals, or share responsibilities equally.	Gross disharmony between spouses, serious lack of communication and understanding; constant quarrels or complete indifference.

Schedule 2. continued

Criteria	Explanation of Ratings		
	Good	Fair	Poor
7. Financial Management	Both partners plan and manage wisely within given budget, without being compulsive or excessively worried about financial affairs.	Inconsistent handling of money, fair amount of debts; or, too rigid and preoccupied with financial matters.	Heavy debts, chaotic household management, unable to plan within limits of given income.
8. Social Handicaps	No social problems, Harmonious, sound, stable family.	Social problems in one or more areas of living, but these are recognized and tried to overcome.	Gross social pathology in one or more areas of living. Limited insight.
9. Family Stability	Closely knit, warm family unit.	Family able to maintain stability, but tends to, or may, break down under severe stress; or, stability only maintained through conscious effort of one marital partner.	A multitude of problems arising as a result of family instability; lack of cooperation between members.
10. Mother-Child Relationship	Warm and close, child receives stability and security, is loved and wanted.	Ambivalent feelings toward child; inconsistent handling.	Poor. Lack of warmth and understanding. Child regarded as a burden.
11. Father-Child Relationship	Warm and close, child receives stability and security, is loved and wanted.	Ambivalent feelings toward child; inconsistent handling.	Poor. Lack of warmth and understanding. Child regarded as a burden.

Schedule 2. continued

Criteria	Explanation of Ratings		
	Good	Fair	Poor
12. Acceptance of Handicap	Complete acceptance of child and his handicap. Handicap regarded as a challenge.	Ambivalence, expressed by denial of handicap; excessive demands on child; overcritical attitude; overprotection.	Actual and overt rejection, neglect; or, obsessional, smothering oversolicitude.
13. Insight into Child's Needs	Child regarded as "child" first, and needs met with love and understanding.	Inconsistency in meeting child's needs. Not too clear understanding of parental role.	Physical or emotional neglect, rejection; or, maltreatment; or, grossly overprotective.
14. Handling of Child (Discipline)	Sound and loving, consistency in setting limits.	Inconsistent and erratic, alternating between harsh discipline and overpermissiveness.	Overly harsh, punitive attitude, smothering and domineering oversolicitude; or complete indifference.
15. Cooperation with Clinic	Eager and willing to use and accept help; conscious effort to follow suggestions; keeps appointments even under difficult physical conditions. Active participation.	Disagrees easily, unable to tolerate inconveniences when attending clinic, needs constant reassurance and support.	Rejects help offered; makes no effort to follow suggestions; withdraws child from treatment; or uses clinic to satisfy own needs.
16. Understanding of Treatment goals	Full understanding and appreciation of treatment goals. All help is used in a constructive way.	Has difficulties intellectually to grasp treatment objectives, but tries to follow all suggestions; or, feels ambivalent about treatment goals.	Intellectually and emotionally unable to comprehend goals; or does not see necessity for treatment.

Appendix B.

Appointment Schedule, Pre-School Hearing Program, Health Centre For Children, Vancouver General Hospital, 1960

THE VANCOUVER GENERAL HOSPITAL - HEALTH CENTRE FOR CHILDREN OUTPATIENT DEPARTMENT

DATE.....
UNIT NO.....

TO:

The following is an appointment schedule for _____. Please report to the Health Centre for Children Outpatient Department, 715 West 12th Avenue, Vancouver, British Columbia, for all appointments except those noted "Therapy Unit". For Therapy Unit appointments, please report to _____.

Your Social Worker will be _____.

PLEASE NOTE: We must receive CONFIRMATION of these appointments, in writing, from the referring agency, doctor, or parents two weeks prior to the first appointment date.

PRESCHOOL HEARING PROGRAM - CHILD "A" - FIRST WEEK

	FRIDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
9:00 A.M.	Registration	Speech & Hearing		E.N.T. Clinic Dr. K. Cambon	Social Worker	
9:30 A.M.	Social Worker	Dr. D. Kendall	Speech & Hearing			
10:00 A.M.	Medical Clinic		Dr. D. Kendall			Speech & Hearing Miss J. Semple (Therapy Unit)
10:30 A.M.			Miss F. Wilson			
11:00 A.M.	Speech & Hearing Dr. D. Kendall	Dr. G. Robinson	Dental Clinic	Speech & Hearing		
11:30 A.M.			Dr. J.R. Miller	Dr. D. Kendall		
1:00 P.M.		Social Worker			Speech & Hearing Miss J. Semple (Therapy Unit)	Conference (not necessary for parents or patient to attend)
2:00 P.M.						
2:30 P.M.						Parents' discussion with Dr. Kendall.

Appointment Schedule continued

PRESCHOOL HEARING PROGRAM - CHILD "A" - SECOND WEEK

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	
9:00 A.M.		Social Worker				
10:00 A.M.		Speech & Hearing Miss J. Semple (Therapy Unit)	Speech and Hearing Miss J. Semple (Therapy Unit)	Speech & Hearing Miss J. Semple (Therapy Unit)		
11:00 A.M.				Social Worker		
1:00 P.M.						
1:30 P.M.	Speech & Hearing Miss J. Semple (Therapy Unit)					
2:30 P.M.	Social Worker					

eech & Hearing File
cial Worker
aP Chart

Therapy Unit
Medical Chart

Appendix C.

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