The implications of early detection and pre-school habilitation of the hearing-impaired child

With special reference to the Provincial Paedo-audiological Centre, Tygerberg Hospital

C. J. DU TOIT

Summary

The basic handicap of deafness, viz. the lack of natural communication skills, can be overcome by early detection of the defect and pre-school habilitation. In congenital deafness this dramatically improves the outlook for these children as regards the acquisition of normal speech, education in normal schools and emotional, social and economic integration into society. Planning for this is the responsibility of the Department of Health and Social Welfare and the provincial hospital administrations.

S. Afr. med. J., **60**, 851 (1981).

He hears his mother's voice for the first time.

The handicap of deafness and a solution

Of all handicaps deafness is generally regarded as the most serious because of its far-reaching influence on the mental, emotional and social development of the affected person. Because deafness cannot be seen, very often the deaf have to forego the sympathy usually extended to the handicapped, and may even be regarded as slow-witted or worse.

Deafness in babies and very young children is a very special problem. The child who is born deaf or becomes deaf in early childhood will not learn to talk and will thus not only be deaf but also dumb. Left to their own resources these children are doomed to a tragic isolation in a silent world with no sound contact with their surroundings, no communication with their fellow human beings, unable to share their emotions and thoughts, not even with their mothers. They are deprived of inner speech which forms the natural basis of our thinking processes. Their intellectual and emotional development is impaired. They find it impossible to adapt themselves socially to a normal community life. Their education is severely interfered with, with obvious adverse effects. When eventually employment is considered they cannot compete freely in the open labour market. Fortunately, however, much can be done to alleviate these problems.

Provincial Paedo-audiological Centre, Tygerberg Hospital and Department of Otorhinolaryngology, University of Stellenbosch, Parowvallei, CP
C. J. DU TOIT, M.B. CH.B., D.T.M. & H., M.MED. (L. ET O.)

Date received: 8 July 1981.

It is important to realize that the basic handicap is not the hearing loss but the lack of natural communication skills, comprehensive and expressive language, and that this basic handicap can be overcome to a great extent if handled the right way, by early detection of the hearing loss, full assessment and early pre-school habilitation of the hearing-impaired baby and young child.

Thus a high proportion of these children, even with a profound hearing loss of an average of 90 dB or more, previously regarded as educable only in schools for the deaf, may, if there are no other serious complicating factors present, acquire sufficient language and speech to develop intellectually and to enable them to be educated within the conventional educational structure, primary, secondary and tertiary, to adapt emotionally and socially to their normal society and ultimately to compete in the open labour market, also in the professions. We then have a child who can communicate normally, practically a normal child, who as far as his education is concerned will have the same needs and problems as hearing children, and who should be handled accordingly.

This approach is undoubtedly the most important development ever in the solution of the problem of congenital deafness. In overcoming the communication barriers, it reaches the core of the problem. In comparison with this all other efforts that are brought into play later on to deal with the problems of the deaf, to give them some form of communication and to improve conditions and the quality of life for them are dealing with symptoms, thus symptomatic treatment instead of preventive and curative.

Stated very fundamentally and briefly, there are a few important facts on which the approach is based:

1. *A hearing child also has to learn to hear and speak.* When he is born he can hear sounds which however have no meaning for him; he does not understand what his mother says. The mother, on the other hand, as nature intended her to do, quite naturally and effortlessly talks to her child continuously all the time through his waking hours while he is close at hand, on her lap or in his cot, using on average 600 words every hour. Gradually her words begin to take on a meaning for him and he begins to understand what she says. This happens particularly easily during the 1st year of life, the period of readiness to listen.

During the 2nd year, the period of readiness to speak, he begins to imitate what he hears his mother say and gradually speech develops. During the latter half of the 2nd year he begins to use short sentences. Further continuous exposure to normal speech at home, in the family group, during the nursery stage, at school or on the playing fields assures the development of fluent speech and eventually he speaks the language with the accent of his surroundings. The most important period in this long learning process is, however, the first few years of life.

2. *Practically all deaf-born babies have some degree of hearing.* This is a fact that has been proved beyond doubt by effective modern methods of testing. The late Edith Whetnall, a pioneer in this field, stated very truly that the tragedy of the deaf-born child very often is not the fact that he is deaf but that what hearing he has is neglected and not used in the development of hearing and speech.

3. *It is possible to test the hearing of young babies accurately.* Not only is it possible to test the hearing of a baby accurately at the age of, say, 7 months, but this is essential because this is the time that treatment of any significant hearing loss should be started if success is to be achieved. The older the child gets before treatment is begun, the worse are the chances of developing his hearing and of acquiring speech through this natural channel. After the age of 3 the outlook deteriorates rapidly and after the age of 5 it becomes difficult.

Very often mothers begin to suspect deafness in their babies because they do not seem to respond to sounds or possibly because of the lack of speech development, only to be told (even by the family doctor) that the hearing of so young a child cannot be tested, and that in any case nothing can be done as yet. As a result of such uninformed advice the critically important early years pass by unused.

Particularly under the following circumstances, the possibility of deafness in a baby should be suspected: (*a*) a family history, on either side, of relatives born with a hearing impairment; (*b*) unsuccessful attempts to procure an abortion at the beginning of pregnancy; (*c*) rubella, influenza, high fevers or other serious illnesses, particularly during the first 3 months of pregnancy; (*d*) the use of neurotoxic drugs during this period; (*e*) complications during or just after the confinement, e.g. prematurity, a prolonged difficult labour, excessive bruising of the baby, asphyxia due to the umbilical cord being twisted round the neck, other respiratory difficulties, icterus neonatorum due to Rh incompatibility; (*f*) a serious illness early in life, such as meningitis, or the use of neurotoxic drugs. Babies in these circumstances are said to be 'at risk' and their hearing should certainly be tested at 7 months. But if only such babies are tested, half the cases of early deafness will be missed. The golden rule is that the hearing of all babies should be tested at 7 months.

4. *A very important discovery was the finding that a deaf-born baby, even with profound hearing loss, previously called stone-deaf, may learn to develop speech in the same way as a hearing child,* provided he gets the same opportunities that a normally hearing child needs for this development. Thus he must be exposed to and hear normal sounds constantly at the early age of readiness to listen and speak, i.e. during the first few years of life, in an atmosphere of love and encouragement that he can only find in his own home circle, and this exposure to normal sounds must be continued during the nursery stage and at school.

5. *How can a child with a severe hearing loss hear the normal sounds essential for development of his hearing and speech?* The answer is that with modern powerful hearing aids it is possible to bring out hearing that we could not even measure with our audiometric techniques, and to amplify the hearing that the child has, even though this may be very little, to usable limits, so that he can in fact hear.

And it is no problem to give a hearing aid to deaf babies. They immediately realize that they derive benefit from it and can hear their mother's voice for the first time (always a wonderful moment to experience — it is as though a new light comes on in their eyes). Soon they will not part with the aids. Now the mother as well as the rest of the family should talk to the baby as to a hearing baby, but even more so, because already time has been lost. Also, from now on over the following years she should have the active assistance of a pre-school habilitation programme, helping her and her child through all the stages until a decision has to be taken as regards future schooling.

So it becomes possible for many of these hearing-impaired children to learn to speak clearly, often just as clearly and intelligibly as hearing children, to be able to communicate freely, to be educated in the conventional school system and to become well adjusted emotionally, socially, academically as well as economically.

This is the remarkably simple background to the pre-school habilitation programme for hearing-impaired children. This simplicity is based on the dictates of Nature, the wisest of all teachers, and explains the remarkable results that are being achieved in overcoming the basic handicap of deafness, the lack of natural communication. The ultimate product is a normal young child with remarkably bright and observant eyes. They do not need our pity — only our help.

Whereas the underlying principles of an early habilitation programme are simple, the actual planning of it should be comprehensive and thorough in all its stages, handled by professionals who have received expert training and experience in their particular fields working together as a team. There should be no weak links in the chain and no slackness anywhere.

Organization of a pre-school habilitation programme for hearing-impaired children in the Cape Province

Planning started in 1961 and was based on seven visits abroad, during which 11 months were spent in leading clinics to gather advice and experience as regards developing the Paedo-audiological Centre at the Tygerberg Hospital. Circumstances then were very favourable, because a new training hospital as well as the buildings for a new faculty of medicine were being constructed, during a period when there was no shortage of funds. As we were initiating a new service in South Africa, adequately trained staff were not available and five selected people with suitable basic qualifications with particular emphasis on otology, psychology, education and logopaedics were sent to leading clinics and institutions in Europe, Britain and the USA where they received specialized training in their respective fields for periods extending over years. They came back as highly trained authorities able to handle the different facets of work in the department, to do research and, very important, to train others for the further expansion of the organization through the rest of the Cape Province, and possibly elsewhere in the country. Fortunately their services are still available to us.

We were thus able to plan a comprehensive organization for the early handling of hearing-impaired children in and around the Tygerberg Hospital and ultimately for the Cape Province, based on the best principles observed overseas and selectively applied to the circumstances peculiar to South Africa. This was

an expensive undertaking but it should be pointed out clearly that the organization was planned not only as a service to the Tygerberg Hospital but also for the rest of the Cape Province and to train personnel who could be used in the development of similar services elsewhere.

The programme started functioning in 1973 when the department was structurally complete, fully equipped and staffed. Since then the volume of the work has grown beyond expectations and with the co-operation of the Groote Schuur and Red Cross Hospitals and the regional hospitals in East London, Port Elizabeth and Kimberley the organization has developed to cover the whole of the Cape Province as the Provincial Paedo-audiological Centre. Many patients come from the rest of the country as well as from the neighbouring states. Extensive experience has been gained in pre-school habilitation of the hearing-impaired on modern principles and we believe that our organization has established a pattern that could be used as a blueprint for similar future programmes in South Africa.

Previously, nothing or very little was done in South Africa for the hearing-impaired child in the critically important early years and in the beginning there was scepticism in certain circles, notably in the Department of National Education, towards this approach. The important implications of early pre-school habilitation especially in respect to the educability of these children are now being accepted generally. At the moment, however, the involvement of the medical and paramedical professions is being challenged by a concept that pre-school habilitation should fall under the control of the Department of National Education and handled by the orthopedagogue and the orthodidactician. Planning on these lines completely ignores the established and proven programme in the Cape Province (as well as work done at the Universities of Pretoria and the Witwatersrand) and if pursued will unfortunately lead to unnecessary duplication of services, certainly contrary to the declared government policy of rationalizing the activities of state departments. Unfortunately, there is also at the moment a tendency for certain professions to claim exclusive rights in this field.

Undoubtedly, however, there is a need in South Africa for more comprehensive planning for pre-school habilitation of the hearing-impaired. It has therefore become imperative to clarify procedures, and the roles of the professions and of government departments. As a contribution I wish to draw on our combined experience abroad as well as in our organization in the Cape Province, built up over the past two decades, to draw certain conclusions and to make some recommendations based on this.

Involved in our programme for early detection, full assessment and pre-school habilitation of the hearing-impaired baby and young child are a team of professionals of which the following are the most important members: the staff of the health departments of the municipalities and divisional councils, medical officers of health, health visitors, community obstetric and paediatric nursing sisters, social workers, general practitioners, otologists, paedo-audiologists, paedo-audiotherapists (specially trained nursery school teachers and specially trained hearing and speech therapists), paedopsychologists, occupational therapists, physiotherapists, in co-operation with the other medical specialties concerned such as paediatrics, genetics, ophthalmology, psychiatry, orthopaedics, and neurology, together with electro-acoustic engineers and technicians.

It has been proved beyond doubt that the successful pre-school habilitation of the hearing-impaired baby and young child can only be achieved by the combined efforts of such a team of professionals, so ideally available in a large central university hospital like the Tygerberg Hospital. The most suitable person to co-ordinate the activities of the team is the head of a university department of otorhinolaryngology, where the hearing and speech clinic with its various subsections logically and most effectively finds its placing.

In the early stages of the programme the emphasis is on the role of the health services and medical and paramedical professions. Later on the contribution of the teaching profession becomes very important especially in the nursery stage, when in co-operation with speech therapists and the rest of the team, nursery school teachers with the necessary specialized training play an important role.

After the nursery stage, the responsibility for further handling of the child rests with the teaching profession, who should, however, ensure that the necessary facilities and specially trained personnel are available within the school system to cope with the special needs of each individual child. Continued follow-up support from the staff of the Paedo-audiological Centre must still be available.

Pre-school habilitation programme

The pre-school habilitation programme at the Provincial Paedo-audiological Centre consists of the following stages:

Early detection of the hearing defect, preferably at the age of 7 months, an age decided on for valid reasons. Great progress has been made in this field, and within the framework of the existing municipal and Divisional Council health services screening is done for hearing defects in babies at about 7 months in child welfare clinics covering the greater part of the Cape Province.

In order to inform the general public of the need for, the implications of, and the possibility of early detection of hearing defects, a pamphlet, *Mother, does your child hear?,* is made available to baby welfare clinics and antenatal clinics.

The course in basic acoustics, anatomy and physiology of hearing, the classification, causes and treatment of deafness (especially congenital) and the modern approach to the problem, followed by practical instruction in screening for deafness in babies and young children, that was started in 1973 for health visitors in the Cape Town municipal and Divisional Council health services and for student sisters taking the Diploma in Public Health at the two Technikons in Cape Town is being continued. Similar courses are given several times a year at the Tygerberg Hospital for nursing sisters taking the Diploma in Community Health and to obstetrics and paediatric sisters and tutor sisters, also from other hospitals or areas. Periodic courses are given to the health visitors of the Child Welfare Clinics in East London and Port Elizabeth and surroundings. In 1978 the South African Nursing Council instructed all nursing colleges to give such training to all branches of the nursing profession concerned with babies and small children.

In the training of undergraduate as well as postgraduate medical students the importance and the techniques of early screening are also taught.

In the Cape Province, cases of suspected hearing defects are referred to the Provincial Paedo-audiological Centre at Tygerberg, either directly or via the Groote Schuur and Red Cross Hospitals and the regional clinics in East London, Port Elizabeth and Kimberley for the next stage of the programme.

Full diagnostic assessment of the baby consists of the following: (*i*) complete clinical examination by the head of the department; (ii) accurate hearing assessment including objective tests done while the baby is sedated or anaesthetized by means of evoked response audiometry, electrocochleography, brainstem responses, impedance audiometry, etc.; (*iii*) physical development and intelligence assessment by a child psychologist; (*iv*) language and speech assessment — if applicable; (*v*) tests for visual acuity; (*vi*) genetic counselling — when indicated; (*vii*) referral to other clinical departments for possible additional handicaps; (*viii*) supply of two suitable hearing aids through a special Tygerberg Hospital tender which makes available aids specially suitable for babies and young children, as determined and controlled by our acoustics

laboratory (highly skilled technical and engineering staff are available here — they are also responsible for the making of individual earmoulds and repairing hearing aids when necessary): (*ix*) interview with the head of the department to discuss with the parents the problems involved in the handicap, the principles and details of the programme planned to alleviate the situation and particularly their highly responsible involvement; (*x*) because the socio-economic background of the family has important implications as regards the programme, they are referred to the social worker attached to the department for assistance, guidance and a full report to the head of the department. It must be possible for the mother not to have to work as she will be fully occupied in the handling of her child. If this should be impossible or e.g. if both parents have severely impaired hearing, special arrangements have to be made.

Now follows a period of diagnostic treatment which will extend over years and which aims at the maximum possible development of the child's communication skills before a decision is taken about its future. Only in this way could a valid assessment be made. It certainly cannot be based on the hearing loss as shown in decibels on the audiogram.

The first stage is **the early parent-guidance programme.** The mother with her baby visits the paedo-audiotherapist weekly at the therapy home which represents all the circumstances of a normal household. Here she is taught how to make use of all domestic situations to expose her baby intensively to all normal sounds, especially the human voice, in order to develop his hearing and eventually speech, according to the same principles that apply to a normally hearing child. A thorough knowledge of the developmental stages of a baby, especially as related to the development of hearing and speech, is essential. This stage is thus best handled by specially trained speech therapists. When indicated, other professionals such as paediatricians, physiotherapists, psychologists, psychiatrists are involved.

Parents and their babies from country districts in the Cape Province, but also from the other provinces and neighbouring states, which account for about one-half of the cases, are handled successfully during 3-monthly visits of 2 - 3 weeks, when they are housed at a nominal cost in a parents' home attached to the therapy house. The regional clinics at East London and Port Elizabeth make an important and growing contribution by supervising the therapy programme of cases in their area during the intervals between their visits to us, according to guidelines supplied by our therapists and in constant contact with them. Their therapists spend regular periods of in-service training in the Tygerberg department. This ensures the quality and uniformity of the therapeutic programme.

The success of applying the principles of early parent guidance in accordance with South African conditions has been proved through the years. Handling in a central specialized hearing and speech clinic ensures that the treatment is being applied expertly by thoroughly trained personnel. In smaller countries like Denmark parent guidance could be given at home by visiting therapists. This approach is impossible in South Africa owing to the distances involved, the distribution of the cases as well as the shortage of trained personnel.

A parent guidance programme conducted by people not suitably trained is doomed to fail and will bring discredit to the approach.

During the parent guidance programme the parents and their children visit the head of the department regularly every 3 months for evaluation of reports from the therapists involved, checking of the hearing aids, making new ear moulds and discussion of any problems that may arise and may perhaps necessitate further referrals. Re-evaluation is done regularly.

From the foregoing discussion it is clear that the early handling of the hearing-impaired baby is the responsibility of the health professions and can only be done successfully by a comprehensive team available in and around a university hospital. No other profession could claim the same intimate contact with, knowledge of, and opportunity for assisting the young hearing-impaired child and his mother at this early stage. The primary concern is the development of hearing, language and speech. The person with the best basic qualifications is undoubtedly the hearing and speech therapist, with special training and working within a team.

Pre-school nursery programme. When, hopefully, by the age of ± 3 years the hearing-impaired child has made sufficient progress in language development the next stage takes place in a specially planned nursery complex, physically associated with the nursery school attached to the hospital crêche. This arrangement assures maximum exposure to normal speech and encourages social acceptance of the child. Children are treated in small groups, graded according to language development, by a team representing several professional skills, viz. specially trained speech therapists and nursery school teachers, occupational therapists, physiotherapists, social workers and clinical psychologists, again in co-operation with the relevant medical specialties. As in the parent guidance programme 3-monthly appointments are made for the mother and child with the head of the department. This is a continuation of the period of diagnostic treatment so essential before a decision can be taken about school placement. Placement will depend not on hearing loss but on the extent to which the basic handicap, lack of communication skills, has been overcome. Our aim is to develop hearing, language and speech to such an extent that future education can take place within the normal school structure. It must be clearly understood though, that we do not claim that all these children can eventually be educated in ordinary schools. With our existing screening programmes our aim is to discover *all* hearing-impaired children and to give them the benefit of pre-school treatment. Sometimes quite unexpected progress is seen in a child for whom ordinary school education seemed impossible. If during the course of the diagnostic treatment it becomes clear that a specific child will not acquire sufficient language to be educable in an ordinary school we prepare them for, and, in consultation with the principal concerned, arrange for placement in a school for the deaf or a nursery class controlled by such a school, where a more structured form of education is available. We thus co-operate with and make a significant contribution to the work of schools for the deaf. Already we are an important source of placement in such schools in the Cape Province. Ultimately, as our screening programmes become more comprehensive, we shall be the most important and practically the only source.

An important function of our nursery complex is the training of nursery school teachers in the handling of the hearing-impaired child at this stage. In conjunction with the Department of Educational Psychology of the University of Stellenbosch a Diploma in Special Education (Hearing and Speech) is offered to a limited number of students yearly. This is an essential service, when it is realized that while we can handle the early parent guidance stage successfully for children from distant areas through periodic visits, it is obviously not possible for all of them to attend our nursery programme. Similar nursery programmes have to be developed at least in the bigger regional centres like East London, Port Elizabeth and Kimberley (as well as in the rest of the country). Thus as an integral part of our programme such developments are taking place at the moment at the Provincial Hospital, Port Elizabeth and the Frere Hospital, East London, where otological services, hearing and speech therapy, occupational therapy as well as the rest of the medical and paramedical team are available. As with the parent guidance programme there, the nursery stage is being co-ordinated and controlled from our central department.

An alternative arrangement could be for the children to attend a suitable normal nursery school in the region, which is prepared to take them. A specially trained nursery school teacher would be essential.

To attach such a nursery class to a school for the deaf would obviously not be acceptable, as the most important clinical tool, continuous exposure to normal speech, is lacking.

In our experience nursery classes handled only by speech therapists fall short of the ideal situation of what is basically a group approach. Specially trained nursery school teachers are indispensable, as was demonstrated very clearly in our programme after the Director of Education made available to our department 12 teaching posts.

Mutual co-operation between government departments is of the utmost importance. Our pre-school programme ideally complements the excellent programme that has been functioning in the Cape Province for the past 50 years to accommodate and assist hearing-impaired children in the provincial educational system. As a result of our contribution many more children have become educable in these schools.

It is evident that at the nursery stage both the medical and the paramedical professions, particularly speech therapists, and the educationists have an important contribution to make. However, because the first priority at this stage is the development of hearing, language and speech, this stage of the programme should be organized primarily as a health responsibility according to the pattern already established by us.

A strong argument in favour of such a pre-school habilitation programme falling under the Department of Health and the provincial hospital departments is the fact that the service thus becomes available to all race groups, whereas the prevailing situation of divided control of education in South Africa could cause serious and completely unnecessary obstacles.

Educational placing. Our procedure is as follows: if during the course of the diagnostic treatment, during the parent guidance or the nursery stage, it becomes obvious that a particular child will not be able to overcome his communication barriers sufficiently to be a candidate for conventional schooling he is prepared for and referred to a suitable school for the deaf. In all other cases the progress of each patient is carefully followed and his language development monitored by the use of tape and video recordings as well as formal tests. When the age of compulsory school placement is reached the child is fully assessed specifically for school readiness by an experienced educational psychologist at the Parow School Clinic, who has been associated with our department for years.

This is followed by a combined meeting and discussions between the head of the department, the various therapists and teachers involved with the particular child, the school psychologist, the parents, representatives from the provincial education department, especially the head of the department responsible for their programme for integrating hearing-impaired children in the conventional school system, the head of the Mary Kihn School for such hearing-impaired children, and, when indicated, the principal of a school for the deaf to decide on educational placing, whether in a provincial school, or a class or a school for hearing-impaired children within the provincial education system, or in a school for the deaf.

If this should seem indicated application is made for a year's postponement of compulsory school placing before a final decision.

Only by this time-tested procedure, where a child is assessed by professionals who during the years of diagnostic treatment came to know his background, personality and potential intimately, in consultation with the local educational authorities concerned, is it possible to reach a responsible decision about his future. The decision cannot be taken by two regional committees, one for the North and one for the South, as suggested to and accepted by the Committee of Educational Heads, particularly when 4 out of the 5 members in the committee are connected with the Department of National Education.

It must be clear from the discussion so far that early detection and pre-school habilitation of the hearing-impaired child must have far-reaching implications as far as school placement is concerned and that the existing system of categorization for this purpose of hearing-impaired children into 'deaf', 'hard of hearing' and 'partially hearing', based primarily on the degree of hearing loss, has to be revised. Children with a hearing loss of 90-110 dB in the speech frequencies now become educable in provincial schools.

The deciding factor is not the hearing loss but the extent to which the child has acquired natural communication, language and speech. The terms 'deaf', 'hard of hearing' and 'partially hearing' have, in the light of recent developments, become meaningless and should be replaced by the comprehensive term 'hearing-impaired', and one could postulate two groups of hearing-impaired children. This classification should satisfy the educational authorities:

1. Hearing-impaired children, who, probably because of early detection and pre-school habilitation, have acquired sufficient natural communication, language and speech, to be educable in the conventional school system.

2. Hearing-impaired children who notwithstanding early detection and pre-school habilitation, or because of the lack of it, or for whatever reason or combination of reasons, have failed to acquire sufficient natural communication, language and speech, so that for communication they will be dependent mainly on the visual tactile senses and will have to receive their education in schools for the deaf according to special techniques available there.

Similarly, it follows that the laws governing the education of the hearing-impaired in South Africa, making it compulsory for 'deaf' and 'hard of hearing' children to go to a special school under control of the Department of National Education, should be revised.

In Denmark, where pre-school habilitation of the hearing-impaired child has been in use for more than 20 years, 50% of hearing-impaired children using hearing aids attend ordinary primary schools, 20% the same schools but with a low patient/teacher ratio, and only 30% the state schools for the deaf.

A very important pre-condition for mainstreaming of hearing-impaired children into provincial schools is that the necessary organization should be available to assist these children according to their special needs.

As a result of the work done in the Provincial Paedo-audiological Centre and similar work on a smaller scale at the Universities of the Witwatersrand and Pretoria, a new generation of hearing-impaired children that can and should be educated in ordinary schools has appeared on the South African scene. It is a disillusioning fact, however, that only in the Cape Province, and to some extent in Natal, are there facilities available to accommodate these children in the provincial schools.

It is also our experience that more and more Coloured children are referred to us at an earlier age and so become educable in normal schools. Already an acute problem has developed in that there are no special facilities for them in their schools. The same applies to Black children, particularly from the Port Elizabeth and East London areas, who are being treated in our programme. Also serious is the fact that there is insufficient accommodation for those children who should be transferred from our programme to schools for the deaf.

Surely a heavy responsibility rests on the shoulders of the educational authorities to give immediate attention to these matters?

While there is an urgent need for the extension of comprehensive pre-school habilitation services for the hearing-impaired to the rest of South Africa as well, this is the responsibility of the Department of Health and Social Welfare and the provincial hospital administrations.