SOCIETIES' PROCEEDINGS

ROYAL SOCIETY OF MEDICINE—SECTION OF OTOLOGY

November 5th, 1948

President—R. SCOTT STEVENSON, F.R.C.S.(Edin.)

Discussion on The Otologist and Rehabilitation of the Deaf*

MR. SIMSON HALL said that the President had given them an excellent exposition of the methods at present used for the rehabilitation of the deaf in the United States. He himself had only just returned from America where he took every opportunity of studying the same problem. He followed fairly closely Mr. Scott Stevenson's itinerary and he could say that the American otologists were full of admiration for the way in which he had picked their brains in the shortest possible time. The Section had enjoyed on this occasion, the benefit of that process, and it was very fortunate that he had brought home the information that he had gathered. He had given the Section a survey which should stimulate and help them enormously in setting up their own clinics.

The problems in this country, of course, were different in many respects from those in the United States. Over in America one found elaborate equipment, soundproof rooms, rooms for audiometry, and so forth, associated to some extent with a commercial sales aspect. A large amount of time was spent in finding out which of the commercial hearing-aids offered was to be used. Thanks to the efforts of the Ministry of Health in this country that problem did not arise, but the fundamental aspect of the matter was in what way they could simplify the problem in order to deal with the very large numbers of deafened persons they were going to have to treat in the near future.

The President had emphasized the auditory retraining of the deaf. That was an aspect which he did not think they had begun to consider in this country. Another point which occurred to him was the fact that they were very much inclined when they felt they wanted some audiometric assistance, to get hold of some intelligent clerk and teach her audiometry. It had struck him most forcibly, and the President had very clearly emphasized it also, that a very high standard of educational acquirement was demanded of such people. In America the majority of such assistants were University graduates; he found some of them going on for the Ph.D. That was a very different proposition from the type of assistant they had visualized here. The salaries in America for these audiometric assistants ranged to $4,400 a year, very different from the Civil Service scales of salaries which the Ministry of Health and the Department of Health for Scotland had so far suggested.

*Opening paper appears on page 179.

https://doi.org/10.1017/S0022215100046405 Published online by Cambridge University Press

MR. F. C. ORMEROD said that he had considerable experience in the fitting of hearing-aids to war pensioners from 1921 onwards, and this work had brought home to him the necessity for an efficient maintenance service, as hearing-aids got out of order with extraordinary facility and were worse than useless unless kept in order. It was also of no help to hand an aid over the counter to the patient unless an adequate demonstration of the appliance and guide in its use and maintenance were added.

We thought it was inadvisable to set up an enormous number of hearing-aid clinics, but that the work should be concentrated in a limited number of well-equipped clinics in certain convenient centres. If these centres were properly equipped and staffed for distribution and maintenance they would make a much better service.

MR. TERENCE CAWTHORNE, after thanking the new President for his interesting, timely and stimulating address, congratulated him on the excellent survey he had given of experiences in America. About many of the things he had said they could, of course, talk all the morning, but the two main aspects that he had placed before them concerned the otologist and the patient—the latter because there was sometimes a tendency to forget that the patient was the most important person in any deafness clinic. He thought the otologist was the right person to see that the patient got adequate investigation and proper treatment, and that the first member of the team to examine a deafened patient should be the otologist himself. He thought that in some instances elaborate examinations and tests of auditory function were carried out before the otologist came on the scene and looked inside the ear, perhaps removing a certain amount of wax.

Out of every 100 cases of deafness which he saw, about 25 got help by surgery; about 10 could not be helped by hearing-aids, leaving 65 or 70 who could be helped by hearing-aids, lip-reading, or a combination of both. Some patients, for one reason or another, required more assistance than others. A principle, which all who were interested in the future of otology should take to heart, was that the otologist should make it his business to supervise and control any scheme of rehabilitation of the hard of hearing.

MR. DOUGLAS GUTHRIE associated himself with those who had already spoken in thanking the President for his address. There were one or two points which might well be elaborated. First of all, there should be closer association between the otologist and the laryngologist. Lately a patient who was using a hearing aid remarked to the speaker, "What is wanted is not really a hearing-aid for the deaf, but a loud-speaker for those who speak to the deaf." As everybody knew, the complaint of many deaf people was, that their friends and others did not speak sufficiently plainly, and there might be some reason in such a statement. If some means could be found of amplifying the voices of speakers and causing them to speak more plainly, a great deal of this difficulty would be cleared away. Some instruction ought to be given, not only to the deaf in the use of their instruments, but to those who spoke to them. They should be instructed as to the form of sound which penetrated and the form which did not.

Another point to which the President had referred was the actual construction of the hearing-aid. The speaker understood that in America, great stress was laid upon the moulding of the earpiece, so as to fit the meatus closely. It

https://doi.org/10.1017/S0022215100046405 Published online by Cambridge University Press

would be interesting to know whether this fitting was as important as it appeared to makers of various aids.

There were various other matters in this interesting address to which one might refer, but the speaker's main contention was that the prescribing of the hearing-aid touched so many fields that they must not be too highly specialized in their outlook. The otologist must take a keener interest in the education of the deaf. He had met many otologists who had no idea how the deaf talked and had never been inside a school for the deaf. Many medical men knew nothing of the problem which faced the teacher.

It would be interesting also to learn from the President whether anything was done in America in order to produce a better type of voice among the deaf. This appeared to be a very difficult matter. The deaf child tended to speak in a monotone, and did not put any music into the voice. He understood that an apparatus was employed in America consisting of neon lights which went up and down with the inflection of the voice. The child was shown a speech pattern and encouraged to copy it by the use of the apparatus. This aimed at the avoidance of monotony and the production of that rise and fall of voice which was necessary to intelligible and musical speech.

Miss Winifred Hall, after saying how very much she had enjoyed the Presidential Address pointed out that in the American clinics the chief emphasis had been on one particular age group—the military age group. In this country we had to deal with all ages, the majority being either children, or elderly, who required their hearing-aid for very different purposes. This called for greater flexibility in the types of instruments available. Mr. Cawthorne had mentioned the important danger of over-examination; she wished to emphasize that. At the same time, an audiometric examination could be very confusing to someone meeting it for the first time, as she knew from personal experience. Hence with an apprehensive patient a second examination might be necessary to get an accurate estimation. She recalled one case where three tests were made. The first one showed an average loss of over 60 decibels, the second of about 50, and the final one was about 40. In each case the test was made by a competent examiner.

Mr. Donald Watson asked whether the President had visited any of the smaller clinics in America and whether the ideas he had put forward as representative of American otology had been translated to the provincial cities there.

Mr. G. I. Henderson said that the main point to concentrate upon in the future was the treatment of deaf children. While it was no doubt worth while trying to rehabilitate those over 70, it was much better to concentrate their efforts on the younger age groups. The most important thing in the examination of deaf children was the discovery of islands of hearing. If the child had got islands of hearing that child could eventually become more or less normal in speech. In his region the Regional Hospital Board had agreed that the examination of deaf children should be undertaken and that the clinic to be established should be open to children and to adults.

Mr. R. R. Simpson also touched on the problem of the eligibility of children for treatment at the hearing aid clinics. In his own area it had been very difficult to secure treatment for these children. He had decided to issue

https://doi.org/10.1017/S0022215100046405 Published online by Cambridge University Press

hearing-aids to these children in the same priority as " persons gainfully employed ".

MR. EWART MARTIN said that it had been a pleasure to listen to Mr. Scott Stevenson's address ; it was a matter they had talked over on many occasions. He, too, had visited many of these centres in the States, and the lessons to be gained from them might be very useful in improving the service in this country. Hearing-aids were at present in great demand. He came across one patient who had already received through the National Health Service two pairs of spectacles, a set of teeth, and now wanted a hearing-aid though he would not admit to any deafness. The free battery service which goes with the hearing-aid may be an attraction to some people.

In Scotland the Health Service Act differed to some extent from the English Act, as also did the previous Education Act. The specialist services required under the Education Act for the different Education authorities had to be borrowed (as it were) from the National Health Service. There is no separate contract so that the provision of hearing-aids to the Education Authorities comes under the National Health Service. Up to date we have not been satisfied with the use of the Medresco hearing-aid for children. Possibly a heavier casing would be an advantage for use in schools.

The training of audiometricians was required under the Health Service. The scale of salary started at £188 and increased to £310, but once the audiometricians have reached this higher figure there seemed to be no further opening for them in the Service. To attract suitable people into this part of the service there must be some further opening for them once they have reached the higher scale.

With regard to Mr. Scott Stevenson's remarks about the rehabilitation of the deaf under the Veterans Service in America, it must be remembered that after the First World War such rehabilitation was started in this country under the Ministry of Pensions. This, however, aimed at giving a deaf person a training in a trade suitable to the deaf, but made no effort to establish them in the trade afterwards. In this country we should make every effort to allow for better and fuller rehabilitation, in other words training the deaf person to hear, and encouraging him to carry on the work in which he has already been trained.

MR. R. D. OWEN thought that it would be a good thing if the Section could draw up a memorandum for circulation to hearing-aid centres so that the development of such centres could be standardized.

MR. GAVIN YOUNG said that in his view the question of lip-reading was of first importance. They must all be aware of the amazing—the almost miraculous—things which a good teacher of lip-reading could do both in the young and in the elderly. One had seen quite elderly people able to appreciate lip-reading and with it their whole outlook on life had been changed. A point which had not been mentioned was the scarcity of teachers of lip-reading. In the Scottish Otological Society the matter had been raised with the Department of Health and, through it, with the Department of Education. He thought that steps should be taken to induce more people to become interested in teaching lip-reading and a preliminary action might be taken by that Section

https://doi.org/10.1017/S0022215100046405 Published online by Cambridge University Press

vis-a-vis the Ministry of Health. One other point: One deprecates over-elaboration in anything, and, particularly in a hearing rehabilitation centre, he thought they could do very well without a psychologist. A teacher of lip-reading would himself or herself be a good practical psychologist.

MR. E. J. G. GLASS, after tendering his congratulations to the President, suggested that the problem of lip-reading was one into which they must go pretty thoroughly. In Nottingham they had a school for the deaf, with an evening class for the adult deaf. But certain problems made their appearance. One was that the teacher of the deaf child was not necessarily the best teacher of the deaf adult. Again, it was found that patients would not go to evening classes in the ordinary way but would attend a hospital for instruction. The Hospital Board had been very sympathetic, but it was pointed out that this was a responsibility under the new Public Assistance Act. Then the matter went to the Welfare Committee, who agreed that the hospital ought to be provided with a lip-reading teacher, but referred the matter to Whitehall, and the answer came back that this was a problem for the Education Committee, so they were back where they had started. He thought they should impress on the Ministry of Health that lip-reading was an integral part of the training and teaching of the deaf.

MR. SCOTT STEVENSON, in reply, said that it seemed to him that they had had an admirable discussion. To stimulate discussion was the point of any introductory paper. Miss Hall's contribution was a very useful one, especially about the age group. It was quite true that the age group as studied over in America was not the age group with which they had mostly to deal here. He agreed that much that had been said about over-elaborate examination was correct. He had noticed at one centre an examination which lasted for three hours one morning and three hours the next morning, to the great fatigue of the patient.

He hoped that the tuning fork and the aural speculum were not going to be wholly forgotten. He agreed that all this examining could be over-done and that financial estimates could be cut down quite a lot. But he did think that a sound-proof room was necessary in order to get an accurate estimate of hearing. Unless this was done it was difficult to say how much of the defect was psychological. That was where the otologist came in.

Mr. Guthrie had mentioned the design of the earpiece. He (Mr. Stevenson) had always said that the disc earpiece was more efficient than the earpiece which was inserted into the auditory meatus, but it was less comfortable. The insert just stuck into the ear lost about 30 per cent. of its value unless it had been specially constructed for the individual. They had persuaded the Ministry of Health that that was true and the Ministry now allowed an individual insert to be prescribed for the Government hearing-aid by the otologist, if he thought it necessary. In the Naval Hospital in Philadelphia, former dental mechanics were employed in making the inserts, and the room in which the inserts were made was previously an ordinary dental mechanic's laboratory. Anyone accustomed to work in plastic material, fitting dentures to the mouth, could undertake the same thing in relation to the ear.

There were more mechanical devices coming along with regard to hearing-aids which would improve them. The printed circuit, for example, was a

https://doi.org/10.1017/S0022215100046405 Published online by Cambridge University Press

fascinating thing. By a single stamping process one could do without 75 different fittings in the hearing-aid. These devices consisted in silver ink stamped on a ceramic or plastic plate, heated usually at a very high temperature in order to get it completely bonded. He had been greatly impressed by the potentialities of the printed circuit in cutting down the cost of hearing-aid provision. They were being made in this country for radio sets already, and there was no reason why they should not be extended to apparatus for the deaf.

The Government hearing-aid had been criticized, but he thought that Mr. Hallpike and his colleagues had done a very good job of work. If one had seen the aid in April, 1946, when Mr. Hallpike and his committee first put forward their report, everyone would have said how excellent it was, but unfortunately it was not made public until July, 1948. Especially for old people and for cases of nerve deafness, the " Medresco " was as good as any hearing-aid that could be obtained. Apparently the Ministry was quite alive to suggestions for improvement. It was quite right for them to have produced not a monopack but a duopack, which was efficient and much more economical. In America the emphasis in the commercial hearing-aids was very much on prettiness and smallness of size. The tiny batteries were much more efficient than they used to be, but they did not last anything like as long as those larger ones used in the Government aid, for example.

He thanked the members of the Section for their criticisms and contributions to the discussion.

https://doi.org/10.1017/S0022215100046405 Published online by Cambridge University Press