la}


dose of vitamin D (in the form of Ergocalciferol, 400 I.U. daily) was started, and six weeks later this was increased to 800 I.U. daily. In addition, the patient was treated with 1,000 I.U. of cholecalciferol (vitamin D₃) daily for five weeks. After this period, calcium carbonate (3 g per day) was prescribed.


described in the literature, it is important to note that vitamin D deficiency is a common problem in elderly patients, particularly those living in institutional settings. Early diagnosis and treatment can significantly improve outcomes for these patients.
to be found in the elderly and simple methods of assistance. After training they were given a visitor’s identity card, signed by the otologist and renewed annually. Visitors were introduced to patients by the hospital appointments officer and given direct access to the consultant otologist, audiology technicians, and the appointments officer. If possible the visitors attended at the fitting of the hearing aid to ensure proper introduction, understanding of the directions, and assure all patient to restating instructions. Visitors subsequently carry a small supply of batteries and leads, and all have a list of addresses and telephone numbers of other visitors to facilitate mutual cooperation.

TRAINING

The hospital management committee and the matron made the nurses training unit available for four training lectures annually.

The first lecture covered the simple technicalities of the National Health Service body-worn aid (OL56), and the visitors were able to handle and assemble the leads, batteries, and receiver. Faulty aids were used for this purpose so that they could recognize and to learn to remedy the faults. Elementary otological tests, the technique of taking an impression, and fitting an insert ear mould were demonstrated by an audiology technician. Audible faults were played on a tape recorder and a guide to the discovery and directions on how to repair them modified from the “troubleshooting chart” of Davis and Silvermann (1960) was given to each visitor.

The second lecture was concerned with the elderly patient, the local prevalence of deafness, types of deafness in old age with special reference to speech discriminatory difficulties, the normal compensation in age for deafness by face-watching, and the methods of assistance apart from the use of hearing aids. The classification of the hearing defects devised for visitors was:

1. Defective transmission of sound.
2. Defective translation of sound vibration to nerve impulses.
3. Defective transmission of nerve impulses.
4. Defective processing of nerve impulses in the brain.

The last group includes senile deafness where understanding need not necessarily be improved by increased auditory stimuli, for it was found important that visitors were taught to recognize the types of deafness in the elderly not helped by the use of an aid.

In the third lecture visitors were shown other aids; the whole National Health Service range (OL56, OL57 with OL575 and OL675 receivers, OL63 using OL375, OL575, and OL675, the OL58, and external aids). Commercial body-worn aids and ear-level aids were borrowed and discussed. Telephone assistance was presented by the local sales manager of the Post Office Telephone Service. Television and radio extensions, alarm devices, and hearing aid purses were shown, and instruction given on how to get them. Mention was made too of the various societies such as the Royal National Institute for the Deaf, the British Association for the Hard of Hearing, and the Somerset county voluntary bodies interested in the deaf and hard of hearing.

The last lecture covered the place in treatment of lipreading and gestures. The elderly are unlikely to learn either satisfactorily because they become increasingly less able to make a sustained effort of learning as age advances, they fail to retain recent knowledge, and their state of health makes regular attendance at classes unlikely. Visitors were taught, therefore, to use natural face-watching, universal gestures, the correct use of light, and clear, careful speech. Above all they were instructed to recognize the onset of tiring so characteristic of the elderly.

Continuing Contact

At the last lecture a typewritten guide was issued, which set out the hospital routine, the system of introduction, visiting, and scope of service, detailing communication arrangements between visitors and hospital officers and repair services. It also introduced report forms, designed to help visitors look for essentials, and the card of authority, which has proved an effective means of introduction on the occasions when visitor and patient could not meet in the clinic at the issue of the hearing aid.

Evaluation of Service

USE OF LAY VISITORS

The standard of social and technical service provided by the visitors has been appreciated by the patients almost without exception in spite of difficulties of limited numbers, uneven distribution of work, time-table and contact difficulties, and limitations of training. In general, social results seemed to be the most worthwhile. Patients liked the contact with visitors and often asked for repeat visits. The visitors form a link with the social services, and by giving their own telephone number and address to the patient can provide an emergency contact.

Technically the visitors encouraged the regular use of hearing aids by instructing in battery insertion, switch control, and lead disposal. Minor defects in an aid can make an elderly user lose patience and discard it. Visitors have seen to the insertion and cleansing of ear moulds; their reports on faults have been valuable; the most common were due to bulky, ill-fitting, or poorly finished inserts. They have pointed out that the smooth wheel control in the Government aid is a major difficulty in switch adjustment to the elderly and partly anaesthetic finger. Visitors have noted faulty parts, and how batches of Government aids differ or vary in quality. They have noted the effect of static electricity from nylon underwear on clothes—rub, noise, and the damage that hair lacquer will do to leads. From a practical point of view they have suggested that the smallest amount of water should be used in washing an insert and that drying be done with a small-sized pipe-cleaner cut in half. Sore spots in the ear caused by rough or ill-fitting inserts have been reported and remedied by marking the mould with a ball-point pen in the appropriate place before returning it to the audiology technician. In these cases, though, the co-operation of the technician or otologist have invariably been sought. Postage of aids needing attention to or from hospital was made easy by the use of Jiffy bags (600 size) with the aids. The sale (at cost price) of the R.N.I.D. purses was popular because clothes—rub was diminished. Visitors have encouraged and assisted patients in the use of telephone accessories, television extensions, transistor radios, and talking books. With regard to small transistor radios, the visitors have noted the popularity of soft commercial inserts among the elderly and question the need for the present bulky and ill-fitting acrylic moulds now in use.

Effects of Service

The visiting service was meant to improve the service in this area; it was not meant to test how far such a scheme would in general increase satisfaction with the use of hearing aids in the very elderly deaf population. There has been no control situation, and no use was defined. The irregular intervals between visits made it difficult to evaluate changes in the use of an aid on a time basis—for example, immediately after use, after one month, after three months, six months, or a year. The records do not suggest that many, if not most, technical faults and changes in the use of an aid occur soon after issue, though there are many instances of visitors picking up later faults not only among their own patients but in others not necessarily on their lists.

A further reason for difficulty in assessment was the visitors’ interest in forming a social relationship, and not the sociological task of measuring the effect. This produced wide gaps in the
information available. For instance there was no possible way of measuring and comparing differing hearing capacities, including the ability to hear speech in a variety of conditions with or without the use of an aid in patients with differing life style, domestic circumstances, general mobility, visual activities and so on.

While recognizing these limitations a few broad assessments can be made of the use of a hearing aid (Table I).

TABLE I—Frequency of Use of Aid

<table>
<thead>
<tr>
<th>When Used</th>
<th>No. of Patients</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constantly</td>
<td>18</td>
<td>16.7</td>
</tr>
<tr>
<td>Often or regularly</td>
<td>30</td>
<td>27.8</td>
</tr>
<tr>
<td>Occasionally</td>
<td>51</td>
<td>47.2</td>
</tr>
<tr>
<td>Not at all</td>
<td>9</td>
<td>8.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>108</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Over 90% make some use of the aid.

“Often or Regularly” and “Occasionally” are measures of frequency of use. Since a given frequency can satisfactorily answer the needs of only one individual no attempt has been made to relate frequency to definite times in which an aid has been used.

Some indication of the disability suffered by an individual through not wearing an aid more regularly, is given by the measure of how much he or she can hear without it. For this purpose conversation was recorded in the visitors reports (Table II).

TABLE II—Disability of Patients through Not Wearing Hearing Aid

<table>
<thead>
<tr>
<th>When Used</th>
<th>Conversation Without Aid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Easy</td>
</tr>
<tr>
<td>Constantly</td>
<td>9</td>
</tr>
<tr>
<td>Often or regularly</td>
<td>18</td>
</tr>
<tr>
<td>Occasionally</td>
<td>1</td>
</tr>
<tr>
<td>Not at all</td>
<td>28</td>
</tr>
</tbody>
</table>

The inverse relation between frequency of wearing an aid and the ease of conversation without it would appear obvious but this frequency is varied by the not unusual habit of wearing aids for other purposes such as television, radio, or church.

The visitors also found that some elderly patients contrived to make some use of the aid when it was not working effectively or causing some inconvenience.

Conclusion

General statistical conclusions about the effect of the voluntary visiting service should not be drawn from these results for the reasons already stated. The visitors to the elderly deaf in Weston-super-Mare have, nevertheless, shown a possible means of service. They have satisfactorily relieved the isolation of the elderly deaf, provided a technical service to their patients, and maintained a link between patient and officers of the National Health Service, not only in the audiological and medical section but also in the sociomedical departments.

I wish to acknowledge gratefully the help of the Weston-super-Mare Council of Churches, the Mid-Somerset Hospital Management Committee, the matron and nursing staff of the Weston-super-Mare Hospital, the hospital records officer and secretarial staff, and the audiological technicians on whose shoulders lay the task of practical instruction. In the preparation and correction of statistical data I thank the medical sociological and statistical staff of the Department of Health and Social Security for guidance and criticism but absolve them at once of responsibility for the final figures or errors.

References

Beasley, W. C. (1940). Laryngoscope, 80, 856.