

Referrals to a hearing aid clinic: scope for improvement

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SUMMARY. *This study followed on from a recent national publicity campaign aiming to get earlier provision of hearing aids for elderly people, improve both patient and general practitioner awareness of hearing impairments and increase knowledge of alternative environmental aids among sufferers. The study intended to examine present patterns of patient presentation and general practitioner management within a major Scottish city. A random sample of patients over the age of 55 years referred to a hearing aid clinic were questioned on the nature of their hearing difficulty.*

Patients who attended their general practitioner at the suggestion of a relative were less likely to be referred at their initial visit and significantly less likely to have had their ears syringed than those who were self-motivated. Respondents had little knowledge of alternatives to hearing aids, although these are relevant to the disability experienced by the majority of these subjects.

Introduction

IN 1986, a major national campaign, called 'Breaking the sound barrier', was launched to help elderly people with hearing difficulties. The proposals contained in a report launching this campaign¹ were aimed at increasing the awareness of both general practitioners and the sufferers themselves and were publicized in the medical literature.² Before the campaign, environmental aids, including flashing door bells and television and radio aids were unfamiliar to the majority of those with impaired hearing.¹ One aim of the campaign was to inform elderly people and relevant professionals of these devices. A year after the campaign a group of patients who had been referred to two hearing aid clinics in Edinburgh were studied.

Method

Eighty eight patients were randomly selected from those aged 55 years and over who were referred to two hospitals in Edinburgh between July 1987 and February 1988 with a request for hearing assessment and assistance. At each hospital those patients referred for consideration for a hearing aid were seen by any one of three doctors. The notes for each clinic were distributed randomly among the clinic doctors and only patients seen by the author were asked to participate. There were no refusals.

At the interview patients were asked four questions about their hearing. Discussions with patients early in the study, however, suggested that much of the hearing disability related to situations where environmental aids might help. The last 50 patients, therefore, were asked two additional questions on when their

disability was greatest and what they knew of alternatives to hearing aids. The final questionnaire was as follows:

1. How long have you had difficulty hearing?
2. In what situation is your hearing difficulty most troublesome?
3. Who first thought you might be helped by a hearing aid? self/general practitioner/relative/other
4. How often have you seen your doctor about your hearing problem?
5. How often have you had your ears syringed in the last three years?
6. Do you know of other ways of helping your hearing? (Giving an example based on responses to question (2), for example television headphones)

Having answered the questions, the patients underwent routine history taking and relevant examination followed by pure tone audiometry. Provision of a hearing aid was arranged for those with a hearing loss equal to or greater than an average of 30 dB at the speech frequencies. Those patients who did not require a hearing aid were to be allocated into a separate group but no such cases were found.

These results were analysed using Student's t-test, taking $P < 0.01$ as significant.

Results

The study comprised 58 women and 30 men aged from 57 to 93 years. The overall mean duration of hearing difficulty was 3.1 years. The patients were sub-divided into three groups based upon whether the patient, general practitioner or a relative had suggested a hearing aid (Table 1). Forty three per cent of patients had attended their general practitioner on their own initiative to request a referral to a hearing aid clinic. Although this was the largest single group, for the majority of patients somebody else had suggested the need for a hearing aid. Thirty per cent attended at the instigation of relatives and one third of the relatives resided with the patient. A further 24% had attended complaining of hearing loss but had not considered a hearing aid until this was proposed by the general practitioner. One of these 21 patients had been identified by general practitioner general screening programmes. The other three patients comprised two referred from geriatric day centres and one patient whose neighbours could no longer tolerate the noise level from his television.

The only statistically significant finding was that the patients attending their general practitioner at the suggestion of a relative had had their ears syringed less often. Although there was no significant difference in the number of visits to their general practitioner, patients attending at the suggestion of a relative were less likely to be referred at their initial visit. There were no significant differences in the duration of hearing loss between groups.

Among our selected group, it was found that 41% of patients were not referred on their initial general practice attendance. If those who required ear syringing are excluded, there remained 33% who required to consult at least twice before referral.

The situations in which the 50 people found their hearing loss most troublesome were as follows: television 15, conversation with background noise 13, telephone receiver 7, female voices 5, door/telephone bell 4, theatre and cinema auditoria 3, no

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Submitted: 28 April 1988; accepted: 28 June 1989.

© *British Journal of General Practice*, 1990, 40, 62-63.

Table 1. Duration of hearing loss, visits to general practitioner and use of ear syringing in each group.

	Person who proposed that a hearing aid may benefit patient ^a			
	Patient (n = 38)	GP (n = 21)	Family (n = 26)	Total (n = 88)
Mean age at visit to hearing aid clinic (years)	75	78	76	76
Mean number of visits to GP complaining of hearing loss	1.4	1.4	2.2	1.7
Mean duration of hearing loss (years)	2.7	3.8	3.2	3.1
Mean number of ear syringings	0.4	1.4	0.2**	0.6

** P<0.01. n = number of patients. ^a Excluding 'others'.

specific situation 3. None of these 50 patients knew of any alternative ways of helping their specific difficulties.

Discussion

In 1984, a report by the Royal National Institute for the Deaf indicated that the problem of hearing impairment in the elderly was not dealt with effectively at several levels. The report suggested that awareness of the problem should be increased among general practitioners and the sufferers themselves. In a previous study elsewhere it was found that 50% of the elderly patients attending their general practitioner with a significant hearing loss (speech frequency thresholds averaging > 35 dB in the better ear) were neither referred for aids nor advised on rehabilitation.³ In this study, 73% of patients who directly requested a hearing aid were referred to the clinic.

The categorization of patients into three groups based on who initiated the referral has not shown any significant differences in the duration of hearing difficulty but revealed that those attending at the suggestion of a relative had had significantly less ear syringing and yet had consulted more than the other two groups. These patients presumably understate or deny their hearing problem to gain inappropriate reassurance and thus suffer delay in referral to a hearing aid centre. How often such reassurance is indicated is unknown but results from three different screening programmes⁴⁻⁶ have shown that 17%, 5% and 38% respectively of those who felt they had a hearing problem had threshold frequencies better than 30 dB. Despite the wide discrepancy in these studies, they agree that reassurance is appropriate to only a minority of the elderly who complain of hearing difficulty.

Interview assessments^{7,8} have been shown to detect a lower prevalence of hearing impairment than pure tone audiometry. There are several reasons for this difficulty in assessing hearing impairment. First, a quiet room without background noise is not a situation where the patient is likely to suffer most difficulty. Secondly, a one to one conversion is ideal for lip reading and can improve performance on speech testing scores by up to 30%.⁹ Thirdly, the hearing loss suffered by patients before they acknowledge it, increases as they get older.¹⁰ These findings may explain why, in one study, only 64% of patients who had a significant hearing loss but did not mention it when attending their doctor were noted to have a hearing problem.³

Less than half of the 50 patients questioned had most difficulty with hearing in situations when a hearing aid is the only available device, for example conversation with background noise and female voices. The majority could gain further rehabilitation with environmental aids. Hearing the television was the main problem in 30% of cases which, although less than the value of 50% found elsewhere,¹¹ is important because these patients may find a direct headphone set for television to be of greater benefit than a conventional hearing aid.¹² Difficulty hearing the telephone receiver or both door and telephone bell was the major complaint of 22%. This can be helped by either amplifier attachment headsets for the telephone or flashing lights and extra

loud bells. None of the patients questioned had been advised on the availability of these supplementary devices prior to their hospital visit. This low level of knowledge on environmental aids has been noted elsewhere.¹³ Increased availability of the Royal National Institute for the Deaf leaflets could improve the use of these supplements to conventional aids. The benefit of poster displays and leaflets in general practitioner waiting rooms has been demonstrated to increase requests for hearing assessment¹⁴ and it is, therefore, possible that such measures applied to environmental aids may be similarly successful.

In conclusion, there remains scope for improvement in referring all three groups of patients for hearing aids. Patients attending at the instigation of a relative should be treated in a similar way to more self-motivated patients. Not only does earlier referral reduce the period of unnecessary disability but getting accustomed to a hearing aid may be easier at an earlier age.

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Acknowledgements

The author wishes to thank Mrs Ann White for typing the manuscript.

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