

Prevalence of hearing problems, and use of hearing aids among a sample of elderly patients

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SUMMARY

Background. Deterioration of hearing with advancing age is well documented. However, the proportion of elderly people with hearing problems who wear hearing aids is low.

Aim. The aim of this study was to assess the prevalence of hearing disability in a group of elderly patients in hospital and to determine their attitudes to hearing difficulties and the wearing of hearing aids.

Method. A random sample of patients who were convalescing were interviewed. A detailed questionnaire was administered to patients regarding their hearing difficulties.

Results. A total of 79 patients were recruited. Twenty two patients were excluded because of low mental test scores, hence 57 patients (72%) were eligible for inclusion into the study. Thirty eight patients were women (mean age 81 years) and 19 were men (mean age 79 years). Thirty patients (53%) reported difficulties with their hearing, of whom 12 had hearing aids. Seventeen patients had consulted their general practitioner about their difficulties, 15 of whom had been referred for audiological examination. Thirteen patients chose not to consult about their hearing problems, to 'suffer in silence'. Of the 12 patients with hearing aids three reported discomfort or pain and five reported problems such as an ill-fitting hearing aid and excessive amplification. Six patients said they wore their hearing aid for less than four hours a day.

Conclusion. Almost all patients consulting their general practitioner with hearing problems were referred for audiological examination but subsequent follow up, especially of problems with hearing aids, was poor. Better health education and case finding is indicated and patients with hearing aids must be questioned specifically about problems when they consult health professionals. Proper assessment, screening and follow up has implications for resources and training, especially of practice nurses.

Keywords: hearing loss; hearing aids; elderly.

Introduction

DETERIORATION of hearing with advancing age is well documented.¹ One third of people aged 70 years and over are deaf enough to require a hearing aid; the proportion is even higher among those aged over 80 years.² Although hearing aids are the mainstay of treatment for presbycusis,³ they are still not used by the majority of elderly sufferers.⁴ Townsend and Wedderburn found that only 6% of people aged over 65 years possessed a hearing aid despite the fact that over 30% had a hearing difficulty.⁵ In a community survey of people aged 50-65

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years, 50% reported having hearing disabilities, but fewer than 10% possessed hearing aids.⁶ Wilson and colleagues found that the prevalence of hearing impairment that is amenable to correction may be as high as 54% in those aged 65 years and over.⁷

The low uptake of hearing aids among elderly people is related to several factors including low referral rates by general practitioners to specialists and a resigned acceptance of deafness as part of ageing by patients, together with patients' unwillingness to be identified with the stigma of disability.⁸ Low indices of suspicion among health professionals and poor diagnostic facilities may also be important. The consequences for the patient of social isolation and psychiatric morbidity are well recognized.⁹ Assessment, screening and follow up of patients with difficulties hearing could have training and resource implications for practice nurses who are likely to be the group of professionals involved in such care.

This survey set out to record the prevalence of hearing difficulties in an unselected group of elderly patients admitted to an acute elderly medical unit, and to determine their attitudes to hearing difficulties and the wearing of hearing aids.

Method

Over a four-month period in 1992 a mean of five patients were randomly interviewed each week, no matter what their hearing difficulties or reason for admission. The patients were either convalescing or were about to be discharged from hospital. A detailed questionnaire, comprising open and closed questions, was administered by S S to each patient. The questions were read out by S S, and the patient's responses recorded. The questionnaire was made up of four sections. The first section consisted of general questions about biographical details, and whether the patient had a family history of problems with hearing and whether the patient had worked in a noisy environment. The second section asked whether the patient had a problem with hearing, whether it had been discussed with or commented on by others and how the hearing problem affected the patient. The third section asked about contact with health professionals for hearing problems, and the fourth section asked various questions about hearing aids. Patients also completed a standard abbreviated mental test¹⁰ and were included in the study if they had a mental test score of seven or more.

Statistical analysis was by the chi square test and Student's *t*-test.

Results

Seventy nine patients were interviewed. Twenty two patients were excluded because of low mental test scores. Of the remaining 57 patients, 38 were women (mean age 81 years, range 69-91 years) and 19 were men (mean age 79 years, range 65-91 years). Thirty of the 57 patients (53%) said they had hearing difficulties. The other 27 patients said they had no hearing difficulties although two of these patients admitted to having difficulty hearing ordinary conversation. Six of the 27 patients reporting no difficulty in hearing had worked for more than five years in a noisy workplace compared with 15 of the 30 patients with hearing difficulties; this difference did not quite reach significance.

Of the 30 patients with hearing difficulties, 12 had hearing aids. Patients with hearing aids had had hearing difficulties for a

mean of four years (standard deviation (SD) one year) compared with a mean of three years (SD two years) for the 18 patients without hearing aids (Student's *t*-test, $P < 0.001$). How patients dealt with their hearing problems is shown in Table 1. Eighteen patients had reported their hearing difficulties either to their general practitioner or to another health worker. Those with a hearing aid were more likely to have told their general practitioner about their hearing difficulties than those without a hearing aid. Of the 17 patients who told their general practitioner about their difficulties hearing, all but one had had their ears examined and 15 were referred for audiological examination.

The experiences of the 12 patients with hearing aids are shown in Table 2. Five patients reported problems with wearing their hearing aid including excessive amplification, whistling noises and having an ill-fitting aid. Three other patients described discomfort or pain. They appeared well instructed in the use of their hearing aids, although only eight knew how to fit new batteries.

Discussion

This study followed on from Keay's study published in 1990 in which considerable scope was identified to increase referral rates to hearing aid clinics.¹¹ In the present study, 88% of patients consulting their general practitioner about their hearing problems were referred for audiological examination. Unfortunately, only 60% of patients with hearing difficulties reported this to their doctor or to another health worker. The reasons for this are unclear. It may be that the patients underestimated their hearing difficulties or had poor expectations of their health. It is well recognized that much 'suffering in silence' occurs among elderly patients, with the notion that this is to be expected at their age.⁸

Table 1. Details of how patients dealt with their hearing difficulties.

	No. (%) of patients with	
	No hearing aid (n = 18)	Hearing aid (n = 12)
<i>Discussed difficulty hearing with:</i>		
General practitioner	6 (33)	11 (92)**
Health worker ^a	5 (28)	11 (92)**
Relative	6 (33)	6 (50)
<i>Reported:</i>		
Difficulty hearing conversation	13 (72)	7 (58)
Avoiding new people	3 (17)	0 (0)
<i>Reported receiving comments from people about difficulty hearing</i>	6 (33)	6 (50)

n = number of patients in group. ^aOther than general practitioner. Chi square test: ** $P < 0.01$.

Table 2. Experiences of the 12 patients with hearing aids.

	No. of patients
Wearing aid behind ear	11
Receiving instructions on how to fit aid	11
Knowing where to get new batteries	12
Knowing how to fit new batteries	8
Wearing aid for less than 4 hours per day	6
Having problems with aid	5
Finding aid uncomfortable/painful to wear	3

It is interesting that 58% of patients with hearing aids continued to report difficulties hearing normal conversation. Poor compliance could be an explanation and 50% reported wearing their hearing aid for less than four hours per day. This may be related to problems with the aids such as pain and discomfort, and such problems not being detected at follow-up visits by health professionals or opportunistically.

A review article detailed all the available hearing aids including those worn in the ear, in the auditory canal, behind the ear, and on the body.¹² It may be that matching the type of hearing aid with the individual patient leads to better compliance. Effectiveness may also be improved with the use of binaural aids.¹²

As the study was hospital based, the results may not give a true reflection of the situation in the community. However the questionnaire referred to patients' experiences before going into hospital. The high referral rate from the general practitioner to the specialist in this study is clearly not sufficient to solve the problem of hearing impairment in elderly people. The study findings indicate continuing difficulties with low patient expectations, inadequate follow up and low patient compliance. It is recognized that doctors need to assess everyday hearing aid performance and not rely solely on objective measures.¹³ A larger community study might reflect a similar picture.

The solution to the problem of hearing impairment and poor hearing aid compliance lies in better health education, better surveillance and possibly case finding as part of the routine screening of those aged 75 years and over. This has implications both for training, especially of practice nurses who carry out the bulk of this work, and for purchasers who need to be aware of the resource implications. On a practical level, hearing and hearing aids should be checked regularly at points of contact between patients and health professionals, yielding benefits in terms of patient welfare.

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