



William Noble

PhD, is Professor of Psychology, Discipline of Psychology, University of New England, Armidale, New South Wales. wnoble@une.edu.au

Preventing the psychosocial risks of hearing loss

Background

The consequences of hearing loss acquired in adulthood include reduced occupational, personal and social capabilities.

Objective

This article discusses the psychosocial impact of hearing impairment and the role of the general practitioner in addressing these issues.

Discussion

There is considerable evidence that people whose hearing is declining are reluctant to acknowledge it because of the stigma associated with this particular type of impairment. Males are more likely to exhibit such reluctance. There is also evidence that acquired hearing loss is associated with increased emotional distress and related mental health problems. General practitioners can play a key role by responding sensitively to signs of reduced hearing ability in their patients, and recommending the use of human and technical resources that address obstacles to communication such as the National Relay Service. This service relies on telecommunication systems that maintain connections between people with hearing loss and the surrounding world.

■ In Australia, more than 2 million people currently suffer from some degree of hearing loss. The incidence of hearing loss increases with each decade of life and is somewhat higher in men than women.¹ The risk of hearing loss with increasing age is increased by factors such as occupational noise, smoking and high body mass index (BMI).²

With increase in the aged population the incidence of hearing loss will rise, and Australian general practitioners will be increasingly likely to encounter patients with impaired hearing.

Common actions in response to hearing loss may include referring patients to an ear, nose and throat specialist, or to a dedicated hearing service such as Australian Hearing for testing and hearing aid services. While there is ample evidence that hearing aids and cochlear implants offer solutions to problems of impaired hearing,^{3–6} it is important to remember that hearing is not restored to normal by the use of such devices. Research shows that only about 20% of people with measurable loss of hearing take the step of becoming hearing aid users,⁷ and many people may struggle with the stigma of wearing them. *Table 1* outlines the benefits and limitations of hearing aids. General practitioners therefore need to consider the psychological and social concerns faced by patients with hearing impairment in their management plan.

The psychological and social effects of hearing loss

There is growing clinical research interest in the effects of impaired hearing on the individual, their family, and wider social circles. Hearing impairment is experienced interpersonally, because vocal communication is at the heart of most people's social interaction. Loss of hearing impacts on such interaction in a major way. The interpersonal nature of hearing loss is further highlighted by the fact that it is often only after a succession of complaints by others that a person with hearing impairment will acknowledge their hearing problem.⁸ The journey from first signs of hearing loss, to the point of seeking help can take many years, supposing it is undertaken at all.⁹

A person with acquired hearing loss may struggle to adjust to the profound changes it brings to their life - including loss of intimacy, loss of casual communication and reduced social engagement. Such reduction - for example, not using the telephone, not dining out with friends – is due to the stress of trying to hear in these types of contexts. By withdrawing from social situations, the person with hearing loss attempts to avoid the difficulty of trying to converse. For a partner on the other hand, the social withdrawal of the hearing impaired person may actually alleviate the strain of continually being the interpreter.

The incidence of mental illness among deaf people is estimated to be about four times greater than in the general population. 10 Adult hearing loss is associated with an increased risk of psychiatric¹¹ and affective mood disorders. 12,13

As their interpersonal and social life narrows, 14-16 a person with hearing loss is likely to experience increasing feelings of frustration, sadness and isolation. Independent surveys in Australia, Japan and the United States of America, show that hearing impairment is consistently associated with increased levels of depression and reduced quality of life for the person with the impairment. 17-19 Other psychosocial impacts of hearing loss include embarrassment, loss of confidence, irritability and anger, dependence on others, and fatigue.20

Obstacles to asking for help

There are many reasons why a person with acquired hearing loss may be reluctant to acknowledge their problem. Among them is an unwillingness to identify with what is often portrayed as a stigmatising persona.21

The common phrase: 'Are you deaf?!' for example, is an accusation, not an inquiry. When a person with hearing loss does not answer someone, or answers incorrectly, the other person often feels affronted and takes their conversation partner to be rude or stupid, resulting in such confrontational comments. Further stigmatising the condition, hearing impairment is often portrayed as hilarious in the world of popular entertainment.

Research shows that there are systematic differences between men and women in what stops them from getting help for their hearing loss. These have important implications for the management and care of such patients by family physicians.

A USA study²² into groups of women and men matched on a range of demographic features, and with similar degrees of hearing loss, found that women are more likely than men to recognise and acknowledge a problem with their hearing; to assign greater importance to communication in social settings; and to use strategies, such as seating themselves in a group conversation, in a way that makes it easier to hear.

In an Australian study²³ into people's motives for seeking help with their hearing loss, women cited their own awareness of their hearing difficulty as a factor leading them to seek help, along with comments made by friends and family.

Table 1. Hearing aids – benefits and limitations

A hearing aid amplifies sounds, making them more audible for people with moderate levels of hearing loss. For people with a mild conductive hearing loss, such as due to damaged eardrums, amplification can be straightforward and beneficial because the loss is the equivalent of having an obstruction in the transmission pathway, while the neural receptor system in the cochlea remains intact

The most common type of hearing loss is from injury to the hair cells of the cochlea. Such injury typically affects different regions of the cochlea to greater and lesser extents, so the pattern of amplification has to be tailored to try to provide an optimal signal at different audio frequencies. Cochlear injury also makes it harder for a listener to attend to signals of interest and ignore background sounds²⁴

There are electronic ways in which background noise can be partially managed, but doing so is costly and draws additional energy from the hearing aid power source. Although hearing aid design has improved in recent years a sizeable proportion of users remain dissatisfied or neutral about their aid/s

Men, on the other hand, did not consider family pressure as a motivating factor, often actively ignoring it. Instead, men cited embarrassment in more formal contexts such as business dealings (eg. with a bank manager or a committee meeting) as being a prime motivator for getting help with their hearing loss.

The role of the GP

General practitioners occupy a unique position at the frontline of care for Australians experiencing hearing loss. They can play a vital role in preventing and addressing the psychological and social risks associated with hearing loss and assist patients with hearing loss to continue to live healthy, fulfilling and socially engaged lives.

General practitioners can assist by being alert to the rising incidence of hearing loss and the demographics among which it is more prevalent. By understanding the psychological obstacles common to those with hearing loss, GPs can act sensitively to help the patient acknowledge their condition and begin to accept help. Physicians can also offer practical support by referring patients to Australian Hearing, or local private practice audiology services, and, where available, local support groups such as Better Hearing Australia (see Resources). Most vital however, is the role GPs can play in recognising the mental health risks to a patient with hearing loss and helping them take steps to prevent any onset of withdrawal, isolation or depression.

Ensuring patients are able to maintain an active personal and social life is an important part of management. While mechanical devices such as hearing aids can improve a person's ability to communicate and engage in social situations, significant enhancements to quality of life have been reported by people using services such as the National Relay Service (see Resources) that provides phone services to people who are deaf, hearing impaired or speech impaired. Whether querying a bill, making an appointment, or chatting with family or friends, users of this service are able to continue their social connections, attend to business matters and even maintain their employment — the maintenance of all of which can significantly reduce the mental health risks of hearing loss and enable patients with hearing loss to enjoy active lives.

Resources

Australian Hearing

Australian Hearing is an Australian Government agency providing a full range of hearing services for children and young people up to the age of 21 years, eligible adults and aged pensioners, and most war veterans. For eligibility criteria visit www.hearing.com.au/eligibility.

Telephone 131 797

Website www.hearing.com.au

Better Hearing Australia

Better Hearing Australia is a nonprofit, self help organisation providing an Australia wide community support service of rehabilitation and help for Australia's hearing impaired.

 $We bsite\ www.better hearing australia.org.au/$

Email info@betterhearingaustralia.org.au

National Relay Service

The National Relay Service is a telecommunications solution for people who are deaf, or have a hearing or speech impairment. An Australian Government initiative, it is funded by a special levy paid by eligible communication carriers. The service uses specially trained relay officers who act as a bridge between callers. For people with hearing loss, the relay officer types the other person's responses, which can then be read on the screen of an adapted phone called a TTY, or, in the case of an internet relay call, on a computer screen. All calls via the National Relay Service are confidential and cost about the same as a local call. Training is free.

Website www.relayservice.com.au

Helpdesk email helpdesk@relayservice.com.au

Users can also SMS the National Relay Service on 0416 001 350 or ask someone to telephone the service on 1800 555 660.

Conflict of interest: none declared.

References

- 1. Davis A. Hearing in adults. London: Whurr, 1995.
- Fransen E, Topsakal V, Hendrickx JJ, et al. Occupational noise, smoking, and a high body mass index are risk factors for age-related hearing impairment and moderate alcohol consumption is protective: A European population-based multicenter study. J Assoc Res Otolaryngol 2008;9:264–76.
- Chisolm TH, Abrams HB, McArdle R. Short- and long-term outcomes of adult audiological rehabilitation. Ear Hear 2004;25:464

 –77.
- Noble W, Tyler RS, Dunn C, Bhullar N. Hearing handicap ratings among different profiles of adult cochlear implant users. Ear Hear 2008;29:112–20.
- Yueh B, Souza PE, McDowell JA, et al. Randomized trial of amplification strategies. Arch Otolaryngol Head Neck Surg 2001;127:1197–204.
- Meister H, Walger M, Brehmer D, von Wedel UC, von Wedel H. The relationship between pre-fitting expectations and willingness to use hearing aids. Int J Audiol 2008;47:153–9
- Kochkin S. MarkeTrak VII: Hearing loss population tops 31 million people. The Hearing Review 2005;12:16–25.
- Hétu R, Riverin L, Getty L, Lalande N, St Cyr C. The reluctance to acknowledge hearing problems among noise exposed workers. Br J Audiol 1990;24:265–76.
- Jones L, Kyle J, Wood P. Words apart: Losing your hearing as an adult. London: Tavistock, 1987.

- Scottish Council on Deafness (date unknown). Position statement on mental health. Available at www.scod.org.uk/Mental_health_-i-61.html [Accessed July 2009]
- Hogan A, Taylor A, Doyle J, Osborn R, Fitzmaurice K, Kendig H. The communication and health needs of older people with hearing loss: Are hearing aids enough? Aust J Audiol 2001;23:10–7.
- Ihara K. Depressive states and their correlates in elderly people living in a rural community. Nippon Koshu Eisei Zasshi 1993;40:85–94.
- Mulrow CD, Aguilar C, Endicott JE, Velez R. Association between hearing impairment and the quality of life of elderly individuals. J Am Geriatr Soc 1990:38:45–50.
- Hallberg LRM, Barrenäs ML. Living with a male with noise-induced hearing loss: Experiences from the perspective of spouses. Br J Audiol 1993;27:255–61.
- Hétu R, Lalonde M, Getty L. Psychosocial disadvantages associated with occupational hearing loss as experienced in the family. Audiol 1987;26:141–52.
- Hétu R, Jones L, Getty L. The impact of acquired hearing impairment on intimate relationships: implications for rehabilitation. Audiol 1993;32:363–81.
- Chia EM, Wang JJ, Rochtchina E, Cumming RR, Newall P, Mitchell P. Hearing impairment and health-related quality of life: The Blue Mountains Hearing Study. Ear Hear 2007;28:187–95.
- Ishine M, Okumiya K, Matsubayashi K. A close association between hearing impairment and activities of daily living, depression, and quality of life in community-dwelling older people in Japan. J Am Geriatr Soc 2007;55:316–7.
- Abrams ET, Barnet JM, Hoth A, Schultz S, Kaboli PJ. The relationship between hearing impairment and depression in older veterans. J Am Geriatr Soc 2006;54:1475–7.
- Princess Alexandra Hospital Health Service District Mental Health Service. 2004.
 The impact of hearing loss. Available at www.health.qld.gov.au/pahospital/mentalhealth/docs/damh_impact.pdf.
- Goffman E. Stigma: notes on the management of spoiled identity. Englewood Cliffs: Prentice-Hall, 1963.
- Garstecki DC, Erler SF. Older adult performance on the Communication Profile for the Hearing Impaired: Gender difference. J Speech Lang Hear Res 1999:42:785–96.
- Noble W. Are you deaf?! What it means to have impaired hearing. Armidale, NSW: University of New England, 2001.
- Plomp R. Auditory handicap of hearing impairment and the limited benefit of hearing aids. J Acoust Soc Am 1978;63:533

 –49.

