

A qualitative investigation of decision making during help-seeking for adult hearing loss

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Abstract

Objective

The Any Qualified Provider framework in the National Health Service has changed the way adult audiology services are offered in England. Under the new rules, patients are being offered a choice in geographical location and audiology provider. This study aimed to explore how choices in treatment are presented and to identify what information patients need when they are seeking help with hearing loss.

Design

This study adopted qualitative methods of ethnographic observations and focus group interviews to identify information needed prior to, and during, help-seeking. Observational data and focus group data were analysed using the constant comparison method of grounded theory.

Study sample

Participants were recruited from a community Health and Social Care Trust in the west of England. This service incorporates both an Audiology and a Hearing Therapy service. Twenty seven participants were involved in focus groups or interviews.

Results

Participants receive little information beyond the detail of hearing aids. Participants report little information that was not directly related to uptake of hearing aids.

Conclusions

Participant preferences were not explored and limited information resulted in decisions that were clinician-led. The gaps in information reflect previous data on clinician communication and highlight the need for consistent information on a range of interventions to manage hearing loss.

1. Introduction

Adult hearing loss is a core part of ageing for most people (Dalton et al, 2003). It complicates communication and access to care, social interaction and work (Gianopoulos et al, 2002; Arlinger,2003). In the U.K., National Health Service (NHS) adult hearing services are organized primarily around provision of hearing aids (NHS Supply chain, 2015). Management of hearing loss relies on active engagement from patients in adapting to using hearing aids (Arlinger,2003). For some time a rehabilitative model of audiology has been the goal of most health services (Erdman et al, 1994).

The decision to seek help with hearing difficulties is determined by defining signs of mis-hearing as symptoms (Carson,2005; Pryce et al, 2010). The process of making decisions has been described as one which involves becoming informed, discovering information about hearing and adjusting to the chronic nature of the hearing loss (Claesen & Pryce, 2012; Laplante-Lévesque et al, 2010). This process is dependent on attitudinal beliefs and cues to action (Meyer et al, 2014). In the promotion of evidence-based healthcare, research and practice communities have emphasised the inclusion of patient preferences in choosing interventions (Greenhalgh et al, 2014). Patient self-determination is valued to differing degrees by audiologists across the world and is influenced by cultural norms (Manchaiah et al, 2014). In qualitative modelling of decision making in audiology the interaction with the audiologist serves as one of several key sources of information and influence on the patient (Laplante-Lévesque et al, 2010). Ekberg et al (2014) have applied conversation analysis to the discourse between audiologists and patients and identified that audiologists frequently disregard emotional content in the patients' talk. This emotional content matters because it communicates much about

preferences (Elwyn, 2012). Indeed communication, counselling and health coaching skills are required to engage in shared decision making which involves a process of option talk, choice talk and decision talk (Elwyn, 2012). According to Ekberg et al, these are skills that are not necessarily developed in audiology training (Ekberg et al, 2014). The training of -audiologists has followed the medical model with its focus on assessing and treating impairments, and with less emphasis on patient values and preferences (Pryce & Hall 2014; Carson, 2005).

Clinicians and commissioners (who, in England, purchase care on behalf of patients) define hearing service provision with relatively little involvement from patients (Pryce & Hall, 2014; Coulter & Collins, 2012). A recent Monitor report on changes in provision under the Any Qualified provider (AQP) framework notes the value to patients of increased choice in location (Monitor, 2015) but they do not investigate patient choice of intervention i.e. they can choose where to receive care but not what care to receive. It is not clear how the AQP pathway enables patient choice of intervention within the chosen provider. In fact, the tariffs attached to these services (payment for providers) award funding for hearing aid fitting and prescribe limited follow up and review. In other words it may not be financially viable to present patients with real choice in shared decision making as payment for non hearing aid options may no longer be available from the audiology provider but requires referral to Hearing Therapy or other services (also NHS funded). As service changes have been rapid, it is important to understand the help-seeking experiences from the patients' viewpoint and to consider their needs and preferences.

The renewed emphasis on patient-centred care with 'No decision about me without me' suggests shared decision making is a core value of NHS England commissioning (Mulley et al, 2012; Coulter & Collins, 2012). The NHS constitution

enshrines the right of patients to express their preferences in decision making (Coulter & Collins, 2012). Implementation of shared decision making requires patients to have access to a range of treatments, but stricter tariff structures for hearing aid provision have removed alternative and additional interventions from the payment (such as hearing aid follow up visits, tuition in hearing loss and hearing aids, support for volunteer services, communication support, environmental aid assessment, etc.). This extends to the removal of hearing aids for some people from NHS provision altogether. (The Sentinel, 2015).

Shared decision making has a particular relevance to adult audiology because treatments require considerable adjustment, self-management and active, daily maintenance on the part of patients (Gianopoulos et al, 2002; Arlinger, 2003). In shared decision making, patients and healthcare professionals decide together which of the options for treatment is most suitable given the individual needs and preferences of a patient. For example, there may be scenarios for using assistive listening devices, rather than hearing aids, to address the environment around the individual. There are options for communication training and counselling rather than hearing aid fitting (Pryce & Hall, 2014; Laplante-Lévesque et al, 2010a). For some individuals pursuing no treatment might also be the best option (Pryce & Hall, 2014; Laplante-Lévesque et al, 2010b).

A solution to delivering audiology interventions more effectively is to adopt a wider shared decision making approach with Decision Aids to inform patients of choices they can make, either ahead of clinical encounters or during clinical encounters. These aids have been effective at reducing patients' decisional conflict and reducing over-use of treatments that do not work for all patients (Stacey et al, 2014; Mulley et al, 2012; Coulter & Collins, 2012). The ultimate aim of the work is to improve shared

decision making in audiology. As a vital first step, we need to know how decisions are made at present and what information people need to make decisions. This study aimed to explore two features of interaction. Firstly, the influences on how decisions are currently made through interaction with English NHS audiology services. Secondly, we aimed to identify what patients need to know to share decisions with the professionals. This information would inform a decision aid adapted to English service provision.

2. Methods

The study adopted inductive research methods. Grounded theory informed the theoretical understanding of the processes and mechanisms involved in decision making (Strauss & Corbin, 1990).

2.1 Approach

This study used interpretive approaches informed by social constructivist epistemology (Straus & Corbin, 1990). The process of decision making was framed as a socially constructed activity informed by social, cultural and psychological factors. Previous work in how adults make decisions in audiological services has highlighted the range of social factors that impinge on the process (Laplante-Lévesque et al, 2010a; Meyer et al 2014).

2.2 Setting and participants

Participants were recruited from the patient caseload of adult audiology services provided by a Health and Social Care social enterprise (not for profit NHS provider) in England. This service is attached to a Hearing Therapy service. Hearing Therapy

is an NHS funded service to which audiologists, primary care physicians and ENT doctors can directly refer. Patients are adults with presbycusis who do not require medical or surgical management and are referred directly by a Primary Care Physician. In this way they were typical of the majority of hearing loss patients within the NHS. The Hearing Therapy service offers communication training, assistive listening device assessment and advice and individual counselling. All these services were available to all participants. Therefore these patients were in an optimal setting to receive choices about services and both hearing aid fitting and alternative or additional services were available on the NHS.

All participants accessed the audiology services through the 'direct referral' route in England, with the exception of the Hearing Therapy patient who was referred from Ear Nose and Throat (ENT) Consultation. The age range was 60 and over, in keeping with clinical referral criteria.

Two hundred and eighty five new and recently assessed direct referral patients to the Health and Social Care audiology services were invited to have their appointments observed and to participate in focus group discussions. In total 27 patients participated: 5 agreed to have their appointments observed while 22 attended one of five focus groups. A further 10 patients volunteered to participate but were unable to attend the focus groups at the dates offered. Participants were 13 male and 14 female, all Caucasian. Participants ranged in age from 60 upwards and were working in, or retired from, a range of blue collar and white collar employment. All had some degree of hearing loss. Two participants did not own or wear hearing aids: the remaining participants ranged from using hearing aids full time to selective use in specific situations. To provide contrast we included participants who had previous experience of hearing aids and were being reassessed, participants who

had no previous experience of hearing aids and were newly fitted and participants who were not fitted with hearing aids. To examine non hearing aid focussed conversations we included observations of a Hearing Therapy encounter.

Participants were invited to participate based on their potential to provide contrast and contribute new perspectives to the developing themes.

Ethical approval for the study was obtained from NRES Committee North West-Liverpool East ref 13/NW/0785. All participants provided written informed consent.

2.3 Data collection and analysis

This study involved data gathered from two qualitative methods. Firstly, observations of patient-audiologist clinical encounters were made to examine how decision making occurs at present and, specifically, what information is requested and communicated. Secondly, focus group interviews with adults seeking help for hearing difficulties were conducted in focus groups to examine the need for information and type of information to make choices. In an iterative process, data were gathered and analysed simultaneously with a constant comparative analysis (Strauss & Corbin, 1990). All clinical observations and focus groups were audio-recorded and transcribed verbatim. Researchers recorded field notes in each observation and focus group, which supplemented the interpretation of meanings in the transcribed data. Both observational data and focus group data were analysed using the constant comparison method of grounded theory. Each meaning statement was allocated a summary label or code. These codes were linked from one observation or interview to another and these linked codes formed categories of the meanings that were communicated across the data set. Theoretical connections

between categories were identified to explain variance in the data. Grounded theory work strives to achieve 'data saturation' that is repeated and consistent references to themes that are fully explored in terms of properties and dimensions. When themes are repeated frequently without new aspects or dimensions emerging, then the data are considered 'saturated' (Straus & Corbin, 1990).

These connections were checked by adjusting the interview topics as the analysis was underway. Where categories were considered they were directly addressed as questions to the focus groups enabling checking of interpretation. This process is common in grounded theory work as a deductive phase in theory development, providing the opportunity to amend theory (Strauss & Corbin, 1990). Data were analysed by the first researcher (HP) and codes were checked by a second and third researcher (AH) and (ALL). The interpretation of codes was similar between the researchers.

3. Results -The process of making decisions to seek help

This paper reports the decision making process as it was observed in clinical encounters and described by participants in focus groups. The headings below are key themes that emerged from the data. Participant quotations illustrate the themes. Where the data are derived from observation, the term 'patient' is applied to patient participants. These are intended to capture the themes communicated across the full data set. Figure 1 illustrates the themes that informed each stage of decision making.

3.1 Decision making - prior to audiology intervention

Decision making occurs before meeting with an audiologist and preferences and values shape the decision to seek clinical help (Meyer et al, 2014). The way in which the individual decides to seek help is important context for the decision making that occurs during clinical appointments. Here, the process of seeking help was characterised by comparison and evaluation of hearing 'signs' as symptoms of hearing loss. Specifically signs were evaluated against internalised representations of typical/atypical hearing function and if characterised as deviant formed 'symptoms' of hearing loss. Participants all described a gradual process of evaluating signs and symptoms before seeking help and a gradual evaluation of hearing behaviour as atypical (Carson, 2005). Most commonly, participants reported that it was comparisons of their hearing performance to others that triggered them to interpret their hearing as impaired. As reported in previous work on decision making multiple 'actors' were involved in prompting the identification of signs as symptoms including family members, acquaintances, friends and clinicians (Laplante-Lévesque et al, 2010) . In this study all participants themselves identified 'atypical' hearing behaviours but did not necessarily label those 'hearing loss'.

'I decided I could not hear desperately well, it got acutely embarrassing when somebody, would say something to me and I'd say "I am sorry can you repeat that"
[participant 4]

'I was having to ask people to repeat words.' [participant 1]

This comparison extended to discussing signs with family and friends and confirming them as symptoms, encouraging help-seeking.

'primarily my wife saying 'God, that television's loud' [laughter]. And ... my work colleagues ... and I'd go 'Say that again', 'Oh for heaven's sake, get your hearing done'. [participant 6]

Such symptoms were then discussed in primary care with general practitioners. These discussions were geared around the potential to access and benefit from audiological services.

'So I went to my GP then and said, do you think I would qualify?' [participant 1]

These discussions informed decisions to seek help. The help-seeking involved a search for authoritative opinion.

'So I prompted the GP to refer me and I decided to accept whatever the recommendations were' [participant 7]

Upon prompting, participants expanded on this decision to accept advice. Here the decision is framed within the prerequisites of help-seeking and part of the 'patient role' that they are undertaking.

'I don't think I had a lot of a choice really, if you've actually gone to the doctor or been prepared to go and see somebody like [Audiologist].... Then I think you've already made that decision that you will accept what they tell you at the end of the day.'
[participant 7]

The key categories that defined decisions prior to audiology intervention were that the process is iterative with ongoing evaluation of performance and an assessment of hearing loss signs as forming collective symptoms. The use of comparison is important in this process as signs become symptoms through comparing hearing performance against others.

3.2 Decision making during audiology intervention – negotiating preferences around the hearing aid

During encounters with audiologists, participants shared information about symptoms and audiologists gathered information about the symptoms through a series of questions. This information gathering was focussed on assessing the degree of perceived difficulty and did not extend to a consideration of patient preferences. These data were derived from the 5 recoded appointments.

I've also figured from my mother in law, who is profoundly deaf and is ninety one, and spends most of her time saying ah, ah, ah.

Audiologist: [Laughing].

Patient 3: Um and I don't want to get like that.

Audiologist: Brilliant and how's the television?

Patient 3: Okay I mean it's not turned up terribly high or anything,

The participant refers to comparison as an indication of why they sought help. They make a clear statement of outcome preference 'I don't want to get like that'. This is a statement of an end goal, but not a statement of preference for a treatment to achieve the goal.

The presence of hearing aids as the prevalent treatment option shapes the encounter by informing how the audiologist asks the patient about preferences.

Audiologist: 'So basically I can see why you're starting to have more difficulties, in terms of um, hearing aids, had you thought about hearing aids before you came today?'

Patient 2: No I mean, my hearing was um, and yes if I need a hearing aid then I'm not, um, I wouldn't object to them.'

The audiologist establishes the patient's willingness to use hearing aids. Despite the patient stating willingness to try options, the audiologist names no alternative or additional intervention options. Furthermore, it is not explained how hearing aids will address the desired outcome. When discussing this in retrospect the patient describes their preferences.

'it [the hearing test] showed the same thing, problems, okay with vowels but not consonants. So they recommended a hearing aid which is the ones I've got.'
[participant 6]

The description here suggests that the audiologist's professional opinion led the decision to pursue a hearing aid by 'recommending' it. This theme of advice giving is consistent in cases where the audiologist does not advise hearing aids.

Audiologist: 'I wouldn't say that you need hearing aids...I don't know how much help it would give you'

In this case again the feedback is given as advice. But the Audiologist goes on to check that this is consistent with the patient's wishes.

Audiologist: 'You might not find a huge improvement in background noise. It all depends on how you feel.'

Patient: I don't know to be honest, I'm slightly sort of split feelings about it.'

The audiologist goes on to explain the ambivalence that patients exhibit.

'the difficulty is some people with this type of hearing loss would get on marvellously with hearing aids but some people would find that hearing aids just wouldn't be doing anything for them. ...it's completely your decision they may help you but they may not'

In this case, the notion that the patient should be involved in the decision is clear. However, the patient does not receive specific information on which to base this decision other than the general notion that it might work for some, but not all, people with similar hearing losses. Cues that would help patients determine whether they are likely to benefit are not provided.

The process of decision making during the audiology assessment appeared rather limited and characterised by advice giving. Audiologists demonstrated attempts to involve patients in the process but without communicating specific information to them and relating that information to their problems and preferences to inform their decisions. Decision making became clinician led as audiologists fulfilled the role of advice giver and prescriber of hearing aids. No alternatives or additional interventions were described.

3.3 Informational needs – how to manage hearing aids

In the retrospective reports gathered through focus groups, participants reported a number of practical issues with their hearing aids that they wish they had known about.

These issues relate to practical management including the difficulty fitting the aids, the combined wear of aids and glasses, the use of volume control and switches and the insertion of open fit domes or ear-moulds. Patients need this information early on so they can decide whether wearing hearing aids is the right option for them.

'they didn't explain clearly the maintenance side of it. I spent nearly a week trying to get the microphones off' [participant 8]

'if I put my head back to talk... I can't hold them behind my ears anymore' [participant 14]

'it [the hearing aid] does get caught up with hair' [participant 7]

The other drawback that participants reported was the need to adjust to noise. They had not been made aware of this before.

'I first started wearing them I could hear the rustle of every newspaper and every noise, magnified immensely' [participant 9]

'I didn't expect to suddenly have this almighty noise in my left ear' [participant 8]

'I was hearing a lot of the stereo in the background' [participant 10]

Such reports highlight the need for practical information in preparing individuals for the reality of living with hearing aids. On the other hand, they reported being well informed about the audiologist's actions during the appointments.

'she explained everything very clearly, what she was going to do and what she wasn't going to do and how long it was going to take.' [participant 10]

The participants described their experience with hearing aids as a process of making individual decisions about how to incorporate them into their lives, without involvement from the audiologist. There is an opportunity to target audiological expertise to the individual's day routine and their hearing requirements.

'I find by about five o'clock I've got to take my hearing aids out' [participant 11]

'there's times when I just shove them back in the box and make do with what hearing I've got' [participant 13]

One participant described the informational role of the audiologist as to manage expectations of the hearing aids.

'I think one of the things you [Audiologists] are doing is managing our expectations' [participant 11]

The 'expectations' that audiologists address refer to the general performance of hearing aids rather than specific day to day coping with hearing aids. The participants describe the role of the audiologist as being to discuss the hearing aids as the treatment for hearing loss.

All focus group participants were asked whether any interventions besides hearing aids had been discussed during their time in audiology clinics. No participants reported being offered or discussing any additional or alternative services.

Their needs were primarily for further information about additional or alternative treatment options for hearing loss. Participants expressed interest for communication groups and written programmes in particular. These additional options raised the point

that without some prior knowledge it was not possible to ask the audiologist about alternative interventions.

'you need to know which questions to ask, because if we don't have any information on the subject...you don't know what you don't know.' [participant 11]

The main categories for informational needs were around hearing aid expectations of performance; hearing aid practical management and alternative or additional management beyond hearing aids.

3.4 Thematic checking

A Hearing Therapy appointment was observed to provide a greater understanding of the decisional process and informational needs that existed beyond hearing aids.

The patient was seeking help from Hearing Therapy for tinnitus and hearing loss.

Traditionally, in the UK, Hearing Therapists have been trained in the use of counselling skills.

Here the patient explains the importance of being able to discuss the symptoms, this is interpreted by the therapist as a possible willingness to consider a group intervention.

Patient: '...you don't feel right in yourself..... I can't really share it with everybody else because they don't really understand it.

Therapist: Is that something you would like to do? Would you like to be able to share more? Would you like to be able to meet people with tinnitus?..... we do have ... we have groups, some tinnitus sessions where more information can be given and it gives you an opportunity to speak ...

Patient: I think everybody has a different way of coping. There might be something within that group; I suppose I can see it might be a possibility that someone may have another way of coping with it.'

The patient also expresses interest in further technological options:

Patient: 'I did notice one of your posters out there, there's a different hearing device, isn't there? I don't know whether there's anything else I can help myself with.'

Therapist: I would like to start you off with maybe some types of hearing strategies that might assist you.'

What is particularly interesting here is how the therapist responds to the query by suggesting hearing strategies and sets the agenda for their time together. 'I would like to start off with...' Again this is resonant of the audiologist led decisions about hearing aids. It also highlights the type of communication differences. While the therapist identifies opportunities for interventions, the patient frames their interest from symptom experience and personal coping. This reflects the themes of practical management & additional management from the wider data set. There is scope to share roles here and to make the decision process explicit by describing the patient role in making choices. In other words, it highlights the needs for patients to have good information, regardless of the clinician they are working with or the focus of the appointment.

4. Discussion and Conclusions

4.1 Discussion

These data highlight key decisional needs that patients share when seeking help with hearing loss. Firstly, there is a need to communicate that there are decisions to make about managing hearing loss (Laplante-Lévesque et al, 2010; Pryce & Hall, 2014, Cienkowski, 2013). The iterative and complex process of identifying symptoms is shaped in the audiological encounter into a discussion about hearing aids and motivation to use hearing aids. This does not appear to include option talk or choice talk but does include decision about whether or not to proceed with hearing aids being the most common aspect of 'decision talk'. There were no observations of discussion about the process of making decisions or interventions beyond hearing aids. Patients' informational needs were focussed on integrating the hearing aids in to their own processes of adjustment and coping with hearing and noise. There were gaps in information given which were consistent with previous report (Kelly et al, 2013). Hearing aids shape communication in audiological encounters (Pryce & Hall, 2015). There are problems in clearly defining patient-centred communication in audiology (Grenness et al, 2014) and this study provides further insight into how this impacts decision making in audiology.

This suggests that decision aids should include information on the potential role of the hearing aids and ways of maximising benefit from them.

4.2 Conclusions

There are gaps in conversations with audiologists. Previous work in the communication behaviours that audiologists use with patients identified that audiologists did not easily engage in discussions with ambiguous or negative themes (Ekberg et al, 2014; Grenness et al, 2015). Hearing aids were quickly presented following a diagnosis of hearing impairment as a problem solving attempt (Ekberg et al, 2014). This finding reflects earlier reports of history-taking in audiology (Grenness

et al, 2015; Kelly et al, 2013). Where clinician communication facilitates shared decision making there are health benefits reported. These include increased concordance and adherence to interventions and management, increased decisional satisfaction and satisfaction with clinical encounters (Pryce & Hall, 2015). Reviews of implementing shared decision making in the UK have highlighted some consistent difficulties with the process (Joseph-Williams et al, 2014). In particular the organisation of healthcare and the interaction patients have with clinicians create barriers to sharing fully in decisions. These reviews highlight the importance of recognising that there is not a 'right' or 'wrong' decision to make and that being open to patient preferences is crucial. Decision aids are useful tools for establishing the expectation that patients participate but require appropriate use by clinicians in order to be effective (Joseph-Williams et al, 2014).

Within Audiology, there has been concern about the degree of health literacy patients present with and their ability to access information (Gilligan & Weinstein, 2014). This study directly responds to this concern by providing new understanding of the information needs of patients.

Qualitative work of this kind is influenced by data saturation, in other words the ongoing iterative development of themes that emerge through accounts, until there are no novel aspects to the theme emerging. Our data became saturated on the topic of the lack of information about alternative treatments beyond hearing aids. The consensus descriptions from our focus groups were that hearing aids were the default treatment for hearing loss and that no alternative and additional strategies were discussed at all. As a result, the focus group participants were not aware of Hearing Therapy options, communication training, assistive listening devices or individual counselling that was available in the service which they attended.

The 'negative case' we examined was a Hearing Therapy encounter to see if the construction of information and the needs for information were different when hearing aids were not a topic for discussion. This highlighted that audiologists and Hearing Therapists are directive in proposing treatments.

4.3 Practice implications

The over reliance on problem solving with hearing aids misses opportunities to explore individual preferences. This matters because shared decision making relies on individual preferences being considered (Pryce & Hall, 2014; Cienkowski, 2013). Elwyn details the process of shared decision making and emphasises the role of the clinician to confer agency to the patient to make a meaningful choice (Elwyn et al, 2012). Audiology clinicians may require further training in communicating choice and eliciting preferences (Ekberg et al, 2014). While decision aids are designed to facilitate consistent information giving and to shape encounters, it is not clear how widely these are used. These data have been used to describe the information needed to make choices about hearing loss and identify the frequently asked questions that patient have. This study has enabled the development of an English decision aid by informing the content of an Option Grid™. Please see fig 1. This decision aid presents the options of hearing aids, assistive listening devices or non-technological approaches to coping, including taking no further action or participating in communication or lip-reading training.

Hearing aids provoke a need to change and adjust behaviour and further information on this could help patients decide how to incorporate hearing aids or other interventions into their coping. These findings also illustrate how shifts in focus from clinician led decisions to shared, informed decision making will require patients to take an active role in making decisions. Furthermore, patients need access to clear

information on all options to be adequately prepared to take part in decisions concerning their hearing care.

Competing interests

The authors have no competing interests to declare.

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Figure 1 The extent and range of information

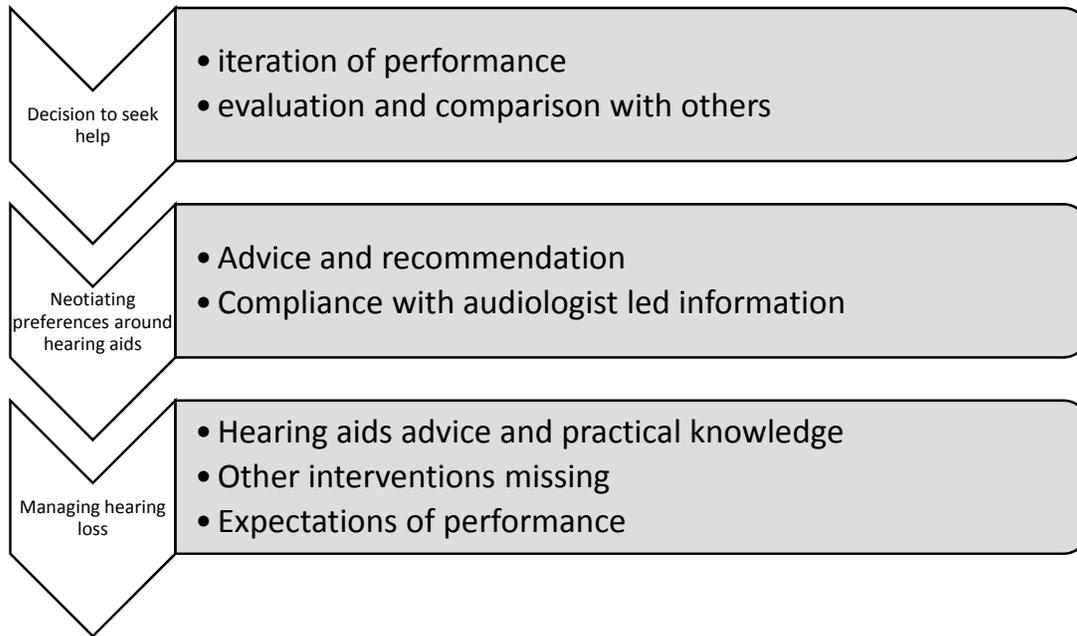


Table 1 : Patient participant details

Participant number	sex	Age band	Hearing difficulties	Hearing aids	Observation (o) or focus group (f)
1	F	60s	Speech, tv ,	Prescribed hearing aids	(o)
2	M	70s	Speech, tv	Not prescribed hearing aids	(o) and (f)
3	F	60s	Tinnitus present, communication difficulties	Previous history of using hearing aids. Prescribed new hearing aid.	(o)
4	F	60s	Group discussions and meetings present difficulty	Hearing aids prescribed	(o)
5	F	60s	Tinnitus – seeking help for tinnitus care	N/A	(o)
6	M	60s	Clarity of speech	Hearing aids prescribed	(o)
7	M	60s	Speech, tv	Hearing aid user	(f)
8	F	60s	Group communication	Hearing aid user	(f)
9	M	80s	All communication	Hearing aid user	(f)
10	F	60s	Group communication	Partial use	(f)
11	F	70s	Group communication	Partial use	(f)
12	M	60s	tv	Hearing aid user	(f)
13	M	70s	General conversation	Partial use	(f)
14	M	60s	Group communication	Hearing aid user	(f)
15	M	70s	Group communication	Hearing aid user	(f)
16	F	70s – (married to no 6)	No hearing loss but communication with partner difficult	No hearing loss identified	(f)
17	F	80s	Communication and tv	Hearing aid user	(f)
18	M	80s	communication	Hearing aid user	(f)

19	M	70s	Communication and tv	Hearing aid user	(f)
20	F	70s (married to 18)	Communication and tv	Hearing aid user	(f)
21	M	60s	Communication in groups	Hearing aid user	(f)
22	F	70s	communication	Hearing aid user	(f)
23	F	70s	Communication	Partial hearing aid user	(f)
24	M	60s	Communication and tv	Partial hearing aid user	(f)
25	F	80s	All speech	Hearing aid user	(f)
26	M	70s	tv	Partial hearing aid user	(f)
27	F	70s	communication	Hearing aid user	(f)

Table 2 audiology clinician participants

Participating audiologist	Background
A	Qualified in last 5 years
B	Qualified in last 15 years
C	Head of service
D	Hearing therapist
E	Locum audiologist

Table 3: The interview topics for focus group discussions

Tell me about your appointment with the audiologist

What options were discussed?

What options might help you?

How did you decide to have/ not to have hearing aids?

Knowing what you know now – would you make the same decision?

What would you tell a friend who was thinking about seeking help with their hearing?

What information would be helpful?

