Practice Guidance

Common principles of rehabilitation for adults with hearing- and/or balance-related problems in routine audiology services

Date of this version: 30th August 2012
Date for review: August 2015
General foreword

This document presents Practice Guidance by the British Society of Audiology (BSA). This Practice Guidance represents, to the best knowledge of the BSA, the evidence-base and consensus on good practice, given the stated methodology and scope of the document and at the time of publication.

Although care has been taken in preparing this information, with reviews by national and international experts, the BSA does not and cannot guarantee the interpretation and application of it. The BSA cannot be held responsible for any errors or omissions, and the BSA accepts no liability whatsoever for any loss or damage howsoever arising. This document supersedes any previous statement on rehabilitation by the BSA and stands until superseded or withdrawn by the BSA.

Comments on this document are welcomed and should be sent to:

British Society of Audiology
80 Brighton Road
Reading
Berkshire
RG6 1PS, UK
info@thebsa.org.uk
www.thebsa.org

This draft is published by the British Society of Audiology

© British Society of Audiology, 2012

All rights reserved. This document may be freely reproduced for educational and not-for-profit purposes. No other reproduction is allowed without the written permission of the British Society of Audiology. Please avoid paper wastage, e.g. by using double-sided (‘duplex’) printing.
1. **Introduction**

Hearing- and/or balance-related problems are often chronic conditions, which can be managed but not always cured. Effective rehabilitation is best achieved through a process that goes beyond addressing the sensory impairment by also providing support to the person experiencing the hearing- and/or balance-related problem (the ‘client’) and to the client’s significant other(s)\(^1\). The purpose of this document is to promote these aspects of care, which address the client within her/his social context. The document is not intended to provide specific management strategies for hearing loss, tinnitus and balance problems. Rather, the document aims to recommend a common set of principles for promoting a client-centred, collaborative and reflective approach to rehabilitation where the audiological professional plays the role of the ‘facilitator’, not the ‘fixer’. This general approach is in keeping with current trends seen across other clinical disciplines in the rehabilitation of chronic conditions.

The document is primarily intended to inform the practice of audiology professionals\(^2\) directly involved in the rehabilitation process. It is also intended to be a reference for commissioners, policy makers and other stakeholders as to what best practice in rehabilitation should comprise.

This document was developed by the Professional Practice Committee of the British Society of Audiology (BSA) in collaboration with the National Institute for Health Research Nottingham Hearing Biomedical Research Unit, the Ida Institute, the BSA Adult Rehabilitation Special Interest Group, the BSA Balance Interest Group, and the wider community (see Appendix A) in accordance with BSA (2003).

---

\(^1\) In rehabilitation for people with hearing loss, the client’s ‘significant other’ is usually referred to as the ‘communication partner’.

\(^2\) The term ‘audiology professional’ refers to all professionals working in routine audiology services including audiologists, hearing therapists, clinical scientists and hearing-aid dispensers.
2. **Background and context**

In 2001, the International Classification of Functioning, Disability and Health was officially endorsed by the World Health Organisation as the framework of disability and health for use in health sectors worldwide. This biopsychosocial approach represents a radical shift in healthcare because it highlights individual health rather than disability, and it shifts the focus from cause to impact. The implications for audiological practice are that activity limitations and participation restrictions (previously known as disability and handicap) that are caused by the hearing- and/or balance-related problem should be addressed in addition to the assessment, diagnosis and management of the sensory impairment. Functional domains for potential activity limitations and participation restrictions include understanding spoken information, conversation, recreation and leisure, education and employment. The framework also considers the influence of contextual factors on sensory impairment, activity limitations and participation restrictions. Contextual factors make up the physical, social and attitudinal setting in which people live and conduct their lives. They can be either external (lifestyle, social attitudes, and so on) or internal (age, education, coping style, personal expectations and so on). By addressing how these issues relate to the psychological, social and emotional impacts of the hearing and/or balance-related problem, the audiological professional can facilitate improvement of the client’s activity, participation, and quality of life (Boothroyd, 2007).

Using the International Classification of Functioning, Disability and Health as an intervention framework directs clinicians towards using a functional approach to audiological rehabilitation. The major goal for rehabilitation is to improve quality of life through changes in behaviour. The approach to rehabilitation should therefore be based on identifying individual needs, setting specific goals, making shared, informed decisions and supporting self-management – steps that are important for helping the client to overcome her/his difficulties in daily life. This approach contrasts with the lesser goal of ameliorating the sensory impairment, which focuses on the means not the ends.

Giving advice focuses on technical education and information exchange and is an important component of adult rehabilitation in routine audiology services. However, the purpose of rehabilitation goes far beyond this. Helping people to confront a range of psychological, social and emotional concerns as they relate to audiology means that audiology professionals typically find themselves in a counselling role. This situation should not evoke concerns or insecurities on the part of the audiology professional. Here, counselling refers to the support provided by audiologists to a client and her/his significant other(s) as he/she learns of her/his hearing- and/or balance-related problem and attempts to recognise, acknowledge, and understand the realities of living with that condition.
(Clark and English, 2004; see also American Speech-Language-Hearing Association, 2008). This process of adjustment should naturally evolve as part of the dialogue that arises within the clinic visits. Adjustment counselling can be distinguished from ‘psychological counselling’ which explores a reinterpretation of the personal conflicts or emotions that a client might have with herself/himself. Intervention that goes beyond adjustment counselling should be provided by a qualified member of the multi-disciplinary team (e.g. a clinical psychologist).

As the UK health service embraces a client-centred model of health care (Department of Health, 2011), four guiding principles should be central to all forms of audiological practice. Those principles are outlined in this document (Section 3):

1. Identifying individual need
2. Setting joint goals
3. Making shared, informed decisions

Section 4 provides some examples of how these guiding principles can be applied at different phases of care. Such skills are learned, not innate, and so they should be continuously developed and evaluated through reflective practice.

3. Guiding principles

Important to effective audiological rehabilitation of hearing- and/or balance related problems is the successful development of a positive, interactive relationship between the audiology professional, the client, and significant other(s). Establishing such a rapport is important because it is known to improve listening, information gathering and client motivation – factors that influence treatment outcomes (Roberts and Bouchard, 1989). The audiology professional’s mastery of these counselling skills enables him/her to know when to listen and when to offer a comment that might permit exploration of feelings that can aid the rehabilitation process. In the context of this positive relationship, the following principles will facilitate the rehabilitation process. They should be fully integrated with the technological or biomedical management of the condition so that they do not form an additional, separate component to routine practice (Laplante-Lévesque et al., 2010a). A good way to enhance continuity of care is for the client to see the same audiology professional across sessions.
● **Identifying individual needs:** Rehabilitation is a process that addresses the needs of each individual with hearing- and/or balance-related problems. It identifies and responds to an individual’s needs in terms of impairment, activity limitation and participation restriction, and associated environmental factors. This approach highlights the contribution of biological, psychological and social perspectives in defining the individual’s unique experience of her/his hearing- and/or balance-related problem. It is intended to facilitate self-management strategies which result in positive benefit.

● **Setting joint goals:** Rehabilitation occurs through a problem-solving and goal-setting partnership. McKenna (1987) was among the first to describe the use of the goal setting by audiologists. He described several notable features for its successful implementation, including the importance of involving the client, her/his significant others and all relevant clinical professionals in the goal planning process. It requires a relationship based on trust, respect, empathy and congruence that enables the individual to develop a sense of ownership of the rehabilitation programme. Rehabilitation should aim to address these goals.

● **Making shared, informed decisions:** Rehabilitation requires a shared understanding between the audiology professional, the client, and significant other(s) of (i) effects of the hearing- and/or balance-related problem, (ii) agreed strategies intended to reduce these effects and (iii) how to effectively implement these strategies. Shared decision-making offers an intermediate alternative between the client accepting full decision-making control, and having no say at all. Intervention strategies might include, but are not limited to, technological or biomedical options. Where studies have separated decisions about technical aspects of treatment from preferences for treatment options, a review of the literature concluded that people want to be consulted about their personal preferences and the impact on treatment outcomes, more so than decisions requiring problem solving (Frosch and Kaplan, 1999). In particular, shared decision making can achieve good outcomes for chronic conditions when several interventions, requiring more than one session, are available (O’Connor et al., 1999). Evidence indicates that rehabilitation decisions can be influenced by many different factors (convenience, expected adherence and outcomes, financial costs, degree of disability, nature of the intervention, and other people’s experiences, recommendations and support) (Laplante-Lévesque et al., 2010b).
Practice Guidance
British Society of Audiology
Principles of routine adult rehabilitation
2012

- **Supporting self-management**: A client-centred approach can help the client to develop effective ways to help themselves. Supportive encouragement to reflect on current strategies can help to highlight both positive and negative aspects of the behaviours that compensate for the hearing- and/or balance-related problem. Where appropriate, the client should be encouraged to use her/his own problem-solving skills to enhance her/his own positive strategies and to improve self-confidence in the ability to take action (known as self-efficacy). Group rehabilitation and self-help organisations can provide the opportunity to benefit from peer mentors (both in terms of offering support and receiving support) (Preminger and Yoo, 2010).

4. **Implications for practice**

The four guiding principles described in Section 3 can help audiology professionals to engage the client in all key aspects of rehabilitation, thus enhancing their motivation and developing a sense of personal control over the problem. Here, we provide a few examples of opportunities to apply those guiding principles in routine practice. This is not intended to be an exhaustive list, nor a replacement to the Department of Health good practice guidelines on service provision for people with hearing, tinnitus and/or balance problems (2007, 2009a,b).

4.1 **Identifying individual needs**

One of the roles of the audiology professional is to understand living with hearing loss, tinnitus and/or balance problems from the perspective of the client and her/his significant other(s). The first appointment should seek to elicit the client’s story towards her/his hearing, tinnitus and/or balance problem within the framework of the International Classification of Functioning, Disability and Health. The assessment should consider: (i) sensory impairment; (ii) activity limitations; (iii) participation restrictions; and (iv) contextual factors. Assessment of the physical impairment is outside the scope of this guideline and so the following points consider the three other domains.

- **Activity limitations**. For hearing-related problems, an emphasis on ‘communication difficulties’, rather than ‘hearing problems’, is preferable. Some example topics could be: What sort of communication activities are important to the individual? What are the client’s problem situations? What is the client’s home environment (living alone, family setting or sheltered accommodation)? What strategies is he/she currently using to cope with hearing loss?
• **Participation restriction.** In the case of balance problems, some example topics could be: What daily living and recreational situations are important to the individual and how these are affected by the condition? For people in employment, what are the impacts of any occupational demands? What support does the client have from family and friends (or employers) to cope?

• **Contextual factors.** In the case of tinnitus, some example topics could be: What are the client’s attitudes towards her/his tinnitus symptoms? Does the client exhibit a pattern of behaviours to avoid situations which they believe might exacerbate the tinnitus symptoms? What is the client’s readiness to challenge these behaviours? What does the client expect the intervention to achieve in her/his problem situations? What is the client’s motivation and readiness to try out new strategies and behaviours?

Appendix B indicates some useful standardised scales to help the audiology professional, client and significant other(s) identify individual difficulties, needs and expectations and for measuring functional outcomes for people with hearing- and/or balance-related problems after rehabilitation.

### 4.2 Setting joint goals

Goal planning refers to a way of structuring and evaluating a rehabilitation programme which is individually designed for a particular client and her/his significant other(s). The NHS Scotland (2009) Quality Standards for Adult Hearing Rehabilitation Services recommend the use of an Individual Management Plan (IMP) for agreeing needs and actions that seek to improve a person’s participation in life. The IMP includes the subheadings: (i) agreed needs; (ii) planned actions; and (iii) completed actions; and (iv) outcomes. It is also useful to document the decision-making process and proposed time scales in the IMP.

• The Quality Standards reinforce the viewpoint that an effective IMP relies on consultation between the audiology professional, the client and her/his significant other(s). Only when all parties are committed to the joint goals is an optimal outcome likely to be received.

• The Quality Standards also support the notion that an IMP is most effective if it takes into account a range of factors, in addition to the type and level of sensory impairment. The main goal is to alleviate client’s activity limitations and participation restrictions rather than manage the hearing- and/or balance-related problems.

• Goals should be explicit, realistic and achievable.
Appendix B indicates some useful standardised scales to help the audiology professional, client and significant other(s) identify individual difficulties, needs and expectations and for measuring functional outcomes for people with hearing-and/or balance-related problems after rehabilitation.

### 4.3 Making shared, informed decisions

The audiology professional should aim to suggest a range of appropriate intervention options and to facilitate informed client choice. To facilitate this process, the significant other(s) should be encouraged to attend the decision-making appointment, with the permission of the client, such as in the appointment notification. The chosen management option(s) should address both the auditory and non-auditory needs of the client.

- Decision aids can be helpful to facilitate shared decision making. A good example of a decision aid was recently developed by Laplante-Levesque and colleagues (2010b;2010c) for adults with hearing loss. This aid used simple and accessible language to present: (i) four possible options (including 'no intervention'); (ii) what is involved for the client; (iii) what is expected from the client; and (iv) what are the positive and negative factors associated with each option, according to the most recent scientific evidence.

- The Quality Standards (NHS Scotland, 2009) also provide a worked example of an Individual Management Plan (IMP) for adult hearing rehabilitation services.

### 4.4 Supporting self-management

Counselling and support should be provided so that the management options are effectively implemented and maintained and non-adherence is reduced. For people with chronic conditions, self-management promotes self-confidence, self-efficacy and competency in managing the device technology and/or symptoms and difficulties for good long-term benefit (e.g. see National Health Priority Action Council, 2006).

- Additional written material should be given as standard. The type of information should be guided by the educational needs of the client and provided at a manageable pace.

- Booklet-based education offers a simple and cost-effective approach to patient care (Yardley et al., 2012). For example, this study demonstrated that a booklet for self-management for vestibular rehabilitation exercises improved patient reported dizziness outcomes compared to routine care. If
the management option is a device (hearing aid, sound masker etc), the audiology professional should provide the client with clear instructions about its recommended usage and its maintenance (Brooke et al., 2012).

- The audiology professional should be sensitive to the client’s potential needs for group rehabilitation (Hogan, 2001; Preminger and Yoo, 2010). There is reasonably good evidence that such a programme provides short-term reduction in self-perception of hearing handicap and potentially better use of communication strategies and hearing aids (Hawkins, 2005). For example, by comparing themselves to other group members, participants find solace in realising that others are living with the same situations. Group work helps to generate and understanding among participants that their stressful situations and reactions are not caused by some personal deficiency. After comparing themselves to others, group members may feel that their problem is not so bad, or that they are managing better than others.

4.5 Follow-up and evaluating outcomes

Hearing- and/or balance-related problems tend to be long-term conditions and their management may change over time. At least one review of the effects of treatment (follow-up) should therefore form an essential part of the rehabilitation process because it considers whether or not the management option is satisfactory with respect to the goals that were jointly set. Follow-up should always be undertaken, not only to ensure any problems that have arisen have been addressed and to modify the management programme if necessary, but also to measure outcome of the management on the individual’s (and perhaps significant other’s) quality of life. Outcomes provide feedback on the effectiveness and benefit associated with the service delivered to the client group and can add to a progressive evidence base of practice.

- A follow up should be offered to all clients without pressure or prejudice. Follow-up appointments should continue where appropriate, and especially if the client is experiencing problems.

- The Department of Health (2011) has recently set out a vision for improving NHS health outcomes; in which NHS providers will be accountable for delivering the outcomes that matter most to people. Two of the key indicators are an enhanced quality of life for people with long-term conditions and a positive experience of outpatient care.

- The NHS Scotland (2009) Quality Standards for Adult Hearing Rehabilitation Services recommend outcome measures as standard (e.g. GHABP, IOI-HA and/or COSI).
Appendix B indicates some useful standardised scales to help the audiology professional, client and significant other(s) identify individual difficulties, needs and expectations and for measuring functional outcomes for people with hearing- and/or balance-related problems after rehabilitation.

5. Summary

Whilst audiology services have benefitted from significant technological advances in recent years, achieving beneficial outcomes for clients is also heavily reliant on an approach to rehabilitation that goes beyond the sensory impairment, considers the client within her/his social context and addresses the most important needs of the individual. This document describes those aspects of rehabilitation that have also been shown to be effective in other chronic health domains. The major goal for rehabilitation is to improve quality of life by focusing on ameliorating activity limitations and participation restrictions through changes in behaviour. It is recommended that this is achieved by adopting four key principles:

1. Identifying individual needs
2. Setting joint goals
3. Making shared, informed decisions
4. Supporting self-management

This approach represents a shift away from a traditional medical approach in which ‘something is done to a patient’ towards an empowerment approach in which people are encouraged to become active participants in the management of their own health and wellbeing (Department of Health, 2011; NHS Scotland, 2009). This document fully supports those legislative changes such that the operating principles become central to all audiology service providers across the UK.
6. References


Appendix A. Authors and acknowledgments

This document was developed by the Professional Practice Committee of the British Society of Audiology (BSA) in collaboration with the National Institute for Health Research Nottingham Hearing Biomedical Research Unit, the Ida Institute, the BSA Adult Rehabilitation Special Interest Group, the BSA Balance Interest Group, and the wider audiology community in accordance with BSA (2003). The Committee thanks all who contributed to this document including three international reviewers and respondents to the consultation (11th November to 16th December 2011). An electronic copy of the anonymised comments received during consultation and the responses to these by the authors is available from BSA on request.

Appendix B. Resources for identifying individual difficulties, needs and expectations and for measuring functional outcomes

This section summarises tools that may be useful to audiology professionals. These are given as examples rather than to attempt to provide an exhaustive list; no implication that they are specifically recommended is intended. Note that some of these tools are suitable as functional outcome measures only if they are administered twice (before and after rehabilitation). The outcome is represented by the difference between those two scores.

B.01 Client-Oriented Scale of Improvement (COSI)

This tool promotes a greater focus on the client’s individual needs and can be helpful to facilitate joint goal setting for a range of audiological interventions. Clients nominate up to five rehabilitation goals and evaluate the changes at the end of rehabilitation process. Hence, the COSI is useful for evaluating functional outcomes too. Developed in Australia, the questionnaire can be downloaded from: www.nal.gov.au/outcome-measures_tab_cosi.shtml.


B.02 Expected Consequences of Hearing aid Ownership (ECHO) questionnaire

This tool has been designed to measure pre-fit expectations of hearing-aid use. It can be used to examine unrealistic expectations that a potential hearing aid user might have, so that counselling can be directed to address these areas before the hearing aid is issued. This may prevent unnecessary disappointment with the experience of hearing-aid use. This tool is recommended at the assessment stage of the IMP (NHS Scotland, 2009). Developed in USA, the questionnaire can be downloaded from: www.memphis.edu/csd/haarl/echo.htm.


B.03 Ida Institute tools

This independent, non-profit educational institute based in Denmark has generated a suite of practical tools to assist audiological professionals in using non-technological based techniques for achieving better client outcomes. These tools have been designed collaboratively with audiology professionals, but to the best of our knowledge there is not yet any published research evidence on their efficacy in routine clinical practice. Any of the tools can be downloaded from: http://idainstitute.com.

B.04 International Classification of Functioning, Disability and Health (ICF) checklist

The checklist is promoted as a practical tool to elicit and record information on the functioning and disability of an individual for clinical purposes. It can be downloaded from: www.who.int/classifications/icf/training/icfchecklist.pdf.

Although its use is not generally widespread, a modified version of part 2 (Activity limitations and participation restriction) has been reported to be useful in developing audiologic rehabilitation goals for clients with adult onset hearing loss (Patterson, 2001).

B.05 **International Outcome Inventory for Hearing Aids (IO-HA)**

This tool is a seven-item questionnaire where each question is designed to address a separate outcome domain such as satisfaction, benefit, quality of life, residual activity limitations, residual participation restrictions, impact on others, and hours of hearing aid use. Developed at an international workshop in Eriksholm, Denmark, the questionnaire can be downloaded from: www.icra.nu/papers/EnglishNormsVersion.pdf.


B.06 **Glasgow Hearing Aid Benefit Profile (GHABP)**

The Glasgow Hearing Aid Benefit Profile (GHABP) is a situation-specific questionnaire designed to be used in conversation with the client. It assesses aspects of auditory disability, auditory handicap, and hearing-aid benefit through the use of up to four standard situations, as relevant to the client, and up to four client-determined situations. Each situation has six questions, two for before the hearing-aid fitting and four for follow-up. GHABP was the functional measure used as part of the NHS Modernising Hearing Aid Services programme and remains the primary validated hearing-related questionnaire in use across the UK. Its standard scoring system makes local and national comparisons possible. It can be downloaded from: www.ihr.mrc.ac.uk/products/display/questionnaires.


B.07 **Tinnitus Functional Index (TFI)**

The Tinnitus Functional Index (TFI) is recommended because of its responsiveness to treatment-related change, validity for scaling the overall severity of tinnitus, and comprehensive coverage of multiple domains of tinnitus severity. Developed by an international consortium, the questionnaire can be downloaded from: http://download.lww.com/wolterskluwer_vitalstream_com/PermaLink/EANDH/A/EANDH_2011_09_27_HENRY_200593_SDC15.pdf

B.08 Vertigo Symptom Score (VSS)

This addresses the frequency and severity of dizziness symptoms within the last 12 months using a questionnaire with 36 items. Two main dimensions identify vertigo-balance and autonomic-anxiety symptoms.


A shortened version (sVSS) consisting of 15 items has also been produced and validated. Questions can be accessed via: doi:10.1186/1472-6815-8-2.


B.09 Vestibular Rehabilitation Benefit Questionnaire (VRBQ)

This is a concise and psychometrically robust questionnaire that has been developed to measure changes in dizziness and its consequences over the course of vestibular rehabilitation. The two main dimensions are symptoms (related to dizziness, anxiety and motion-provoked dizziness) and quality of life. It can be downloaded from: www.isvr.soton.ac.uk/audiology/vrbq.htm.
