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Group or individual tinnitus therapy: What matters to participants?

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Abstract
Objective: To explore the 'active ingredient' of tinnitus therapy groups. *Study design:* The design was an inductive qualitative study informed by grounded theory. Eight participants, four from a tinnitus group and four from individual therapy with similar content, were invited to discuss their experiences of tinnitus therapy. The interviews were transcribed and analysed using a constant comparative approach. *Results:* The findings revealed that group experiences facilitate information exchange and social comparison, which facilitates coping. *Conclusions:* The human dynamics of groups may have an additional therapeutic benefit.

Key words: *tinnitus, coping, social comparison*

Introduction

Tinnitus is a term used to describe any spontaneous noise perceived in the head or ears that does not have an external source (1). It is a common condition with prevalence estimated at between 10 and 15% of the population (2), with 2–4% seeking help or being referred to an ENT consultant (3,4). The perceived loudness of tinnitus also varies but, interestingly, perceived loudness is not a predictor of tinnitus annoyance in determining the severity of tinnitus (5).

For a small percentage of individuals (1–2% of the population) tinnitus becomes unbearable and totally obtrusive, having hugely detrimental effects on quality of life (4). Feelings of not being able to escape the noise and not being able to control it are very common in tinnitus patients who seek help (5). It is as yet unknown exactly why so many people seem to experience tinnitus without adverse effects, while others find it debilitating (2).

This fundamental paradox is at the heart of clinical decisions in managing tinnitus. Audiologists, otologists and therapists are concerned with the factors that determine why one person will experience tinnitus as a normal feature of their lives and another will suffer from it.

It has been suggested that people with debilitating tinnitus are more anxious or depressed than a similar sample of the population (6). It is not clear if tinnitus is the main cause for the increase in anxiety and depressed modes or if people who suffer from debilitating tinnitus have pre-existing personality traits predisposing to anxiety and depression. The audiological literature provides us with examples of patients' anxiety exacerbating their symptoms. Pryce proposes a link between increased levels of anxiety or distress and increased incidences of mishearing (7). Yardley, Masson and Verschuur, et al. (8), recognized a similar phenomenon in patients with balance problems. It is conceivable, therefore, that the increased level of anxiety experienced by tinnitus patients who seek help may actually be contributory to their tinnitus distress, which in turn then makes the tinnitus more obtrusive and even more distressing. Salkovskis, Clark and Breitholtz (9) describe this vicious circle as a 'positive feedback loop'. Therefore, the interactions between an individual's perceptions of tinnitus and their coping characteristics are worthy of investigation.

Little is currently understood about the active ingredients in tinnitus treatments and these treatments generally rely on well-established theories of coping.

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Examples are giving information to improve understanding of attributions, and using approaches to improve problem- and emotion-focused coping adaptations such as explanation of the anatomy and physiology of the ear, sound enrichment (9), relaxation (10,11), cognitive behavioural therapy or other forms of counselling (2,12), mindfulness training (13), or biofeedback (14). Many of the tinnitus management protocols may be delivered in group settings or individually.

In addition, relatively little is known about the role of the group experience as a treatment in its own right, yet there are many clear theoretical reasons why a group dynamic could be helpful in this context.

Group activity is intrinsic to life. Becoming part of a group can create a sense of belonging and a sense of purpose. These feelings are important in developing self-esteem and social capital (15,16). Our aim is to examine whether the group component of group therapy has the potential to be an active ingredient in developing coping with tinnitus.

Group work is associated with improved coping behaviours in diabetes, smoking cessation and controlled eating behaviours (17–21). In hearing rehabilitation, group work has been associated with reduced perception of hearing handicap (22,23).

There are a few studies available examining various aspects of group work with tinnitus patients. In Germany, inpatient reports of helpfulness and feeling understood and being treated properly were compared between those who attended a structured tinnitus management therapy group led by a therapist and a peer-led problem solving group, where topics for discussion were chosen by the patients. The tinnitus management therapy group showed consistently better results than the problem-solving group in helpfulness and satisfaction with treatment (24,25). In 1994, Kroner-Herwig, Hebing and van Rijn-Kalkmann et al. (26) studied the effects of group cognitive behavioural therapy in tinnitus management. However, it is impossible to isolate the effects of the cognitive behavioural therapy from the experience of being part of the group itself. Similar observations were made by Kroner-Herwig, Frenzel and Fritsche et al. (24) and Andersson, Porsaeus and Wikland, et al. (15), who all delivered their cognitive behavioural techniques in group settings.

Group work has been found to be beneficial, but without a closer examination of the participant's experience we cannot learn whether it is the presence of the group or the activities contained that are important in bringing about change.

Methods

The present study aimed to investigate in detail the experience of participating in a group and of adjusting to tinnitus. This process is best examined through an inductive approach where the interplay between varying factors can be considered. Without an analysis of process, investigators cannot truly understand the causal link between interventions and outcomes (27,28); therefore, such work is crucial in refining theoretical understanding about the role of tinnitus treatments.

Sample

Ethical approval was granted by the South Wales Research Ethics Committee. Participants were recruited from current tinnitus groups run in South Wales. The groups were led by audiologists and clinical psychologists. Patients were asked to attend five 2-h sessions held on a weekly basis. Topics covered included anatomy and physiology of the ear, mechanisms of tinnitus, sound enrichment, relaxation, cognitive behavioural therapy, mindfulness, sleep hygiene and biofeedback. The sample of patients who did not attend the group received individual tinnitus therapy with the same content but without the additional group support. A list of contents for the therapy delivered in either group or individual formats is included as Appendix 1.

Eight tinnitus patients were purposefully selected from a consenting sample, four who had attended group tinnitus management sessions and four who had attended individual tinnitus management sessions. An information sheet and consent form were sent to all patients who had attended the group sessions, and all patients who had attended individual sessions over the same time-period that the group sessions had been held. Of the patients who responded, the interviewing audiologist selected four patients from each group. The aim of purposeful selection was to ensure that a rich contrast in experiences was included (25). The sample was gender balanced and included a wide range of postcode areas within South Wales to ensure socioeconomic mix. The only exclusion criteria applied to participation to the study was any evidence of physical or mental health issues that rendered a patient's participation hazardous for the patient or the interviewer.

Data gathering

The participants were contacted by an audiologist to arrange a mutually convenient time to hold an interview regarding their tinnitus experience. Particular areas of interest would be current perceptions of tinnitus and the development of self-management strategies which illustrated coping behaviours. The interviews were led by a topic schedule and were audio-recorded and transcribed.

Data analysis

The interviews were transcribed and then coded using a grounded theory approach. Grounded theory is an inductive approach to theory development in which comparison of themes within datasets (in this case interview transcript) generates theoretical frameworks to explain variation in experience and process (29). Theory is developed through a process of open coding meanings, comparing and linking these into a framework that describes how a process occurs, and refining them to identify a core category or significant factor that explains variability in experiences. The data in this study take the form of individual interviews which were transcribed and then coded. Open coding is a term used to describe the process of finding certain themes or concepts within the transcript. Starting with the first interview, a number of categories are created as particular themes or important points are recognized. As more information is gathered, more concepts are recognized, resulting in the creation of more categories. It is important for the data analysis to take place at the same time as the data gathering in order to purposefully select participants and gather the richest and most relevant data possible (29,30). This allows for emerging themes in the data to be explored further or themes that have been absent to be purposefully explored. For this reason it is acceptable to ask additional questions as the interviews progress to ensure that any emerging themes are investigated fully.

Data gathering continues until a point of 'saturation' is achieved, i.e. until no new dimensions to categories appear. In this sample, saturation was achieved in the main themes with noticeable consistency between accounts.

Results

The group therapy participants consisted of two male and two female participants. The participants ranged in age from 40 to 83 years, and they came from a wide range of geographical areas in South Wales. Group participants are referred to as Bob, George, Beryl and Jenny; the individual treatment participants are Carys, Fred, Glyn, Joyce (Table I). All names are pseudonyms.

Accounts revealed that the themes surrounding coping focused on identity, validation and symptom severity. These themes were present in all interviews but the group participants did experience them differently.

Identity

Group participants referred to their presence in the group as affecting the identity that they attributed to tinnitus. In particular, the comparison made between accounts helped participants to clarify their view of their tinnitus. Despite the presence of qualified audiological staff, it is the peer information that is reported. In part, this is due to the informal information exchange that takes place in a therapy group.

'The group pointed out to me how the stress side of it can affect the tinnitus.' (George)

Peers were regarded as having particular insight.

'Non-tinnitus people...people who haven't got it...They're probably not interested.' (George) 'and they (people without tinnitus) would say...people don't tend to think that you suffer...I don't think they realise do they?' (Beryl)

'You (to the researcher) can be on the same lines as what we are but you can't hear what we (tinnitus patients) are hearing...they (professionals hosting the therapy group) haven't got it but they understand it partially and they are quite interested in trying to listen to people...You (researcher) can't tell'...These people don't know.' (Bob)

The participants seen individually were aiming to develop the identity of their tinnitus. This was seen in participants searching for answers. Information appeared to be the most important resource sought by participants.

'I read an article about someone who lost his hearing in one ear, he has blue tooth technology...Even after that appointment I did some research on the internet...I made an appointment to go and see (a private ENT consultant). I was just thinking, there must be something they can do... (Carys). 'He (private Dr) said there is a box they can fit you with...to make it go away...There may be a couple of techniques I can learn which may help me, because my mind's always open to something...' (Glyn). 'How does it fluctuate, the noise in my ear?...we look at eating habits, drinking habits, working habits, but it's the same all the time... You've got to ask, that's how you find out.'(Fred).

The information source here was the clinician.

'She gave me a good diagram of the ear and explained exactly what happened to me... because she helped me understand it, it probably reduced the annoyance.' (Carys)

'The information the audiologist gave me was really good. After having the help it was a lot better.' (Glyn)

'It helped to find out different things about it, when I asked about the levels and is there a cure, it kind of helps you in a way...' (Fred)

'However, there was a sense of an ongoing quest to make sense of the experience and identify remedies. It's not easy living with it. When the tinnitus is really bad it's horrendous...I read up on it. I've even gone to the stage where I've gone to herbal remedies...' (Fred)

Table I. Characteristics of participants.

	Bob Group	George Group	Beryl Group	Jenny Group
Age (years)	63	58	59	59
Gender	M	M	F	F
Employment	Unemployed (health issues)	Employed (power station employee)	Retired (Due to stress and health)	Employed (Day care Officer)
Hearing aid user	Bilateral aids provided (not used)	Wore bilateral aids provided	Unaided	Unaided
Audiogram	Bilateral mild/moderate SNHL bilaterally	Bilateral mild/moderate Conductive (worse lt)	Mild loss high frequencies only bilaterally	Mild SNHL Bilaterally
Duration of tinnitus	13 years, bothersome for 3 years	1 year	10 years, bothersome for 1 year	1 year
H/O stress or depression	Depression	Short bout of depression previously	Work related stress	Depression but recovering
Location of tinnitus	Both ears	Both ears	Both ears Much worse in the left	Right ear

Fred Individual	Glyn Individual	Joyce Individual	Carys Individual
55	40	83	59
M	M	F	F
Employed (General stores)	Unemployed (Health issues)	Retired	Retired
Unilaterally aided	Bilaterally aided	Bilateral aids, only wears one	Unaided
Rt, severe SNHL; lt, normal hearing	Bilateral mild SNHL	Rt, severe SNHL; lt, mild SNHL	Lt, total SN hearing loss Rt, normal hearing
20 years but more obtrusive recently	Approx 3 yrs but more obtrusive since a serious road accident	'Many' years but more obtrusive since a bereavement	18 month, coincided with sudden hearing loss.
No depression but reports low mood due to tinnitus	Psychiatric issues since car accident, also invited to attend anger management	Obvious very low mood but no diagnosed depression	Depression but no longer taking medication
Right ear	Both ears	Both ears	Left ear

Validation

All participants reported that feeling understood and having their experiences validated was important.

'The most important thing is how I was made to feel. I felt that someone was listening to me and I was treated like a person...not like cattle and that makes a difference.' (Glyn)

For the participants who had come to the tinnitus therapy group there was support in meeting peers. This helped participants to normalize the experience.

'It's nice to meet other people in the same area that we live in with the same problem... I thought, great, someone else has got it.' (Bob)

'It made me feel like, Hey, I'm not the only one like this...You're not the only person... Listening to all these other people...I have got this and I'm not the only person. Good... I felt togetherness...I felt I was part of something, albeit because there was something wrong with me.' (Beryl)

'It's good to talk with others who got the problem.' (George)

'Someone else was experiencing the same thing... You can talk about it, you can hear about other peoples' experiences...I know now you can go to the groups, talk to people who know about it.' (Beryl)

The camaraderie readdressed the 'us and them' balance. In a group setting the 'tinnitus person'

suddenly becomes one of the majority and the professionals, considered by some as 'non-tinnitus people' have their presence and perceived authority reduced as they are now the minority. This phenomenon could give the participants confidence to ask the questions they want to without embarrassment. The presence of peers and these informal exchanges are recalled and valued rather than any specific tinnitus treatment that the group had experienced. Indeed it was the group setting that gave participants the opportunity to explore how their peers were managing their tinnitus.

'One gentleman did talk of the pillow with polystyrene beads so if that helps someone else well that's good...They can swap and exchange tips so it's certainly helpful in that respect.' (George) 'Everyone speaking about their own tinnitus and how they were going through it.' (George)

'It's nice to know that I have tried what they liked and maybe they have tried what I liked.'(Beryl)

'It's educational because you're thinking, oh, I didn't realise that could happen, or I didn't realise this or I didn't realise that...or that's amazing.'(Beryl)

For individual patients validation was also important and participants also describe social comparison. Here, though, the accounts imply that their situation may be worse than those they meet:

'I've spoken to other people who can't hear or they've lost the hearing in one ear but they don't seem to have the continual noise.' (Carys)

'I said, how is yours now...mine don't come all the time, she said...Why is mine all this time?'(Joyce)

Symptom severity

The comparison was an important feature in evaluating the severity of symptoms. Participants who attended groups particularly reported finding a comparison useful.

'I didn't feel as though mine was as bad as theirs when they were speaking ... Everybody speaking about their own tinnitus – how they were going through it.' (Jenny)

'The way we look at it is there is always someone worse off than yourself.'(Fred)

'I've spoken to other people who can't hear or they've lost the hearing in one ear.' (Carys)

An interesting observation about the group participants' interviews was that while they all accepted they were not alone in experiencing tinnitus most of them demonstrated downward comparison.

'I wouldn't like to be like other people in the group... I'm fortunate...I'm lucky in the fact that I have a degree of control over it...others haven't...I know there are people a lot worse than me with it.' (George)

'I didn't feel as if mine was as bad as theirs.' (Jenny)

In contrast, the individually treated participants indicated upward comparison.

'I don't think (her's is) overwhelming like it is with me.' (Glyn)

The core category

The core category is defined as the category that explains variation in the themes and features in every account as related to all other themes. Here the core category is 'social comparison'. Social comparison is seen as a part of emotionally adjusting to the presence of the tinnitus. It influences how individuals may interpret their tinnitus symptoms and normalize their experiences. What is particularly noteworthy here is that participants who have received intervention in groups appear to demonstrate more downward comparison, i.e. considering their problems to be less severe than others, whereas those treated individually appear to regard their problems as more severe (upward comparison).

Discussion

Social comparison is a phenomenon that was initially theorized in the 1950s. Festinger (31) postulated that it was natural for individuals who had something in common to compare themselves and draw conclusions regarding their own abilities, situations or future, based on these comparisons. Upward and downward comparisons can work positively or negatively (32). For example, downward comparison may make a person fearful and pessimistic about their future as they worry they will be in the same situation as the person who is managing less well (32). There are also circumstances under which upward comparison may prove to be a source of inspiration to a group member and in this way it will nurture hope (33). This work offers a detailed description of the way group dynamics influence individual evaluation of tinnitus.

One of the major difficulties in tinnitus research, aiming at evaluating outcomes of management, is the lack of sensitivity of most of the outcome measures, which are commonly in the form of a questionnaire. Tinnitus is a very individual complaint, and the 'story' of the patient, in their own vocabulary, can play an important role in shaping counselling and management plans. This study has identified that information giving was valued and accepted by more individuals than any of the specific management strategies offered

via the group or one-to-one appointments. Validation of experience is also apparently important to individuals, leaving them feeling justified in their experience and content that they have been acknowledged. The core category emerging from the data shows us that it is the group itself and the peer interaction that has proved the most beneficial aspect of the group therapy. Thus, we suggest that clinicians consider the validation and information needs of patients with tinnitus. Dibb and Yardley (34) discussed the benefits of showing individuals that others have similar experiences to them.

It is hoped that larger scale studies will be carried out in the future to further investigate these early findings. The MRC framework for evaluating complex interventions in health (28) recommends a further three stages of investigation after a qualitative study of this proportion, to include exploratory trials and randomized controlled trials, before an intervention can be considered as thoroughly explored.

This study as a whole finds its place among the existing literature in that it concurs with commonly used management strategies (e.g. CBT, sound enrichment, relaxation), proves beneficial for some but not all tinnitus patients, and it agrees that group therapy better arms a patient to manage their condition. This study, however, adds an investigation into why the group works. It confirms that validation of experience and receipt of information are important in successful tinnitus management and reveals that camaraderie and the opportunity to identify with others on a more personal level are also essential ingredients.

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References

1. Mcfadden D. Tinnitus. Facts, Theories and Treatments. Washington, DC: National Academy Press, 1982.
2. Andersson G, Baguley DM, Mckenna L, McFerran D. Tinnitus. A Multidisciplinary Approach. London : Whurr; 2005.
3. Dobie RA Depression and tinnitus. Otolaryngol Clin N Am. 2003;36:383–8.
4. Zoger S, Svedlund J, Holgers K. The effects of sertraline on severe tinnitus suffering: a randomized, double-blind, placebo-controlled study. J Clin Psychopharmacol. 2006; 26:32–9.
5. Handscomb L. Analysis of responses to individual items on the tinnitus handicap inventory according to severity of tinnitus handicap. Am J Audiol. 2006;15:102–7.
6. Mckenna L, Hallam RS, Hinchcliffe R. The prevalence of psychological disturbance in neuro-otology outpatients. Clin Otolaryngol. 1991;16:452–6.
7. Pryce H. Emotional responses to King Kopetzky Syndrome: a qualitative study. Audiol Med. 2003;1:247–54.
8. Yardley L, Masson E, Verschuur C, Luxon L, Haake NP. Symptoms, anxiety and handicap in dizzy patients: development of the vertigo symptom scale. J Psychosom Res. 1993;36:731–41.
9. Clark DM, Salkovskis PM, Ost LG, Breitholtz E, Koehler KA, Westling BE, et al. Misinterpretations of body sensations in panic disorder. J Consul Clin Psychol. 1997;65:203–13.
10. Vernon JA, Meikle MB. Tinnitus Masking. In: Tyler RS, editor. Tinnitus Handbook. San Diego: Thomson Learning; 2000. pp 313–56.
11. Weise C, Heinecke Kief W. Biofeedback-based behavioural treatment for chronic tinnitus: results of a randomized controlled trial. J Consul Clin Psychol. 2008;76:1046–57.
12. Andersson G, Lyttkens L. A meta-analytical review of psychological treatments for tinnitus. Br J Aud. 1999;33:201–10.
13. Sadlier M, Stephens SD, Kennedy V. Tinnitus rehabilitation: a mindfulness meditation cognitive behavioural therapy approach. J Laryngol Otol. 2008;122:31–7.
14. Young DW. Biofeedback training in the treatment of tinnitus. In: Tyler RS, editor. Tinnitus Handbook. San Diego: Thomson Leaning; 2000. pp 281–95.
15. Andersson G, Porsaeus D, Wiklund M, Kaldo V, Larsen HC. Treatment of tinnitus in the elderly: a controlled trial of cognitive behaviour therapy. Int J Audiol. 2005;44:671–5.
16. Haslam SA, Jetten J, Postmes T, Haslam C. Social identity, health and well-being: an emerging agenda for applied psychology. Appl Psychol An Internat Rev. 2009;58:1–23.
17. Peterson AJ, Lark AW. Using group decision to reduce adolescent girls ' smoking. Psychol Rep. 1986;58:179–85.
18. Peterson CB, Mitchell JE, Crow SJ, Crosby RD, Wonderlich SA. The efficacy of self-help group treatment and therapistled group treatment for binge eating disorder. Am J Psych. 2009;166:1347–53.
19. Aveline MO, McCulloch RB, Tattersall RB. The practice of group psychotherapy with adult insulin-dependent diabetics. Diab Med. 1984;2: 275–82.
20. Agronin M. Group therapy in older adults. Curr Psychiatr Rep. 2009;11: 27–32.
21. Steffen V. Life stories and shared experience. Soc Sci Med. 1997;45:99–111.
22. Hawkins D. Effectiveness of counselling-based adult group aural rehabilitation programmes: a systematic review of the evidence. J Am Acad Audiol. 2005;16:485–93.
23. Hallberg LR-M, Barrenas M-L. Group rehabilitation of middle aged males with noise-induced hearing loss and their spouses: evaluation of short- and long-term effects. Br J Audiol. 1994;28:71–9.
24. Kroner-Herwig B, Frenzel A, Fritsche G, Schilkowsky G, Esser G. The management of chronic tinnitus. Comparison of outpatient cognitive-behavioural group training to minimalcontact interventions. J Psychosom Res. 2003;54: 381–9.
25. Wise K, Rief W, Goebel G. Meeting the expectations of chronic tinnitus patients: comparison of a structured group therapy programme for tinnitus management with a problem-solving group. J Psychosom Res. 1997;44:681–5.
26. Kroner-Herwig B, Hebing G, van Rijn-Kalkmann U, Frenzel A, chilkowsky G, Esser G. The management of chronic tinnitus: comparison of cognitive-behavioural group training with yoga. J Psychosom Res. 1994;39:153–65.
27. Bond J, Corner I. Researching dementia: are there unique methodological challenges for health services research? Age Soc. 2001;21:95–116.
28. www.mrc.ac.uk A framework for development and evaluation of RCTs for complex interventions to improve health 2000. (accessed 6/08/2010).
29. Strauss A, Corbin J. Basics of qualitative research: grounded theory procedures and techniques. Newbury Park, CA: Sage; 1990.

30. Smith JA. Qualitative Psychology. A practical Guide to Research Methods. 2nd edn. CA: Sage; 2008.
31. Festinger L. A theory of social comparison processes. Human Relations. 1954;7:117–40.
32. Buunk BP, Collins RL, Taylor SE, van Yperen NW, Dakof GA. The affective consequences of social comparison: either direction has its ups and downs. J Pers Soc Psychol. 1990;59: 1238–49.
33. Major B, Testa M, Bylsma WH. Responses to upward and downward social comparisons: the impact of esteem relevance and perceived control. In: Suls JM, Wills TA, editors. Social Comparison: Contemporary Theory and Research. Hillsdale, NJ: Erlbaum; 1991. pp 237–60.
34. Dibb B, Yardley L. How does social comparison within a self-help group infl uence adjustment to chronic illness? A longitudinal study. Soc Sci Med. 2006;63:1602–13.

Appendix 1.

Therapy programme

- General information re tinnitus mechanisms
- Role of anxiety in tinnitus obtrusiveness
- Relaxation
- Sound enrichment
- Stress management
- Impact on relationships
- Tinnitus therapy techniques in the news/complementary therapies
- Hyperacusis
- Management of sleep disturbance
- CBT techniques
- Mindfulness
- Maintenance and long-term goals