



Hearing Aids for Music

Exploring the music listening behaviour of people with hearing impairments



Initial findings from a clinic questionnaire

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Background

- Music is an important part of people's everyday lives (Greasley et al., 2013), including those with hearing impairments (Fulford et al. 2011)
- 10 million people in the UK have a hearing impairment (AoHL 2011), but little is known about the music listening experiences of this population
- Hearing aids (HAs) are designed to amplify speech but the acoustic properties (e.g. frequency range, amplitudes, crest factors) of speech and music are very different (Chasin & Russo, 2004; Tozer & Crook, 2012)
- HAs help with music listening but are problematic for live performances. HA users can experience distortion and acoustic feedback, sudden dynamic variations and low fidelity (Madsen & Moore, 2014)

Aims

- To explore the prevalence of music listening problems among HA users
- To identify the nature of discussions about music between audiologists and their patients in clinic

Method

- Four questions (rating scales) and open-ended responses (see below)
- Extent of problems with music listening, effect on quality of life, whether music has been discussed with audiologist and the outcomes of this
- Sheffield Teaching Hospitals NHS Foundation Trust Hearing Service
- Harley Street Hearing and Musicians' Hearing Services

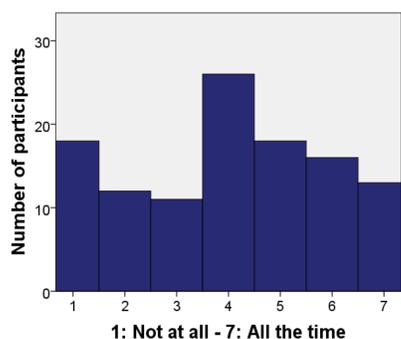
Sample

- n = 115, Age: M 60.30, Gender : 50 F (44%) 63 M (56%), STH: 53 HSH: 62

Results

"Sounds 'tinny' and indistinct"

1. Do you experience problems listening to music? n = 114, M = 4.00 (SD 1.93)



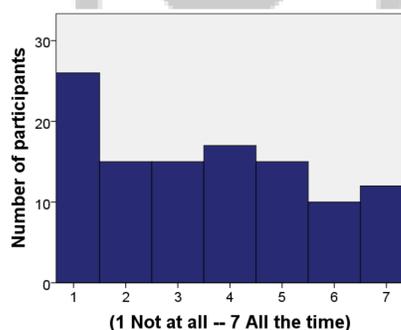
- Lack of definition / clarity / fidelity
- Difficulties hearing words in songs
- Problems hearing quiet passages
- Distortion
- Problems in live contexts

"At a concert or opera, I have to remove the aids"

"...other problems related to hearing loss have been more important..."

"I cannot hear the words at all"

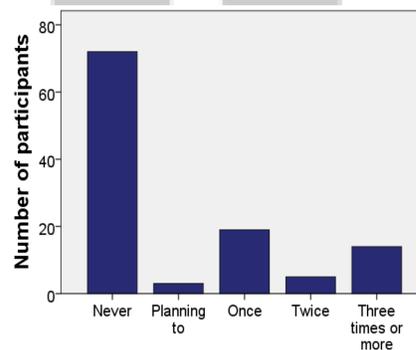
2. Does this negatively affect your quality of life? n = 111, M = 3.50 (SD 2.04)



- Mixed responses
- Loss of music as part of life or hobby
- Social exclusion and isolation

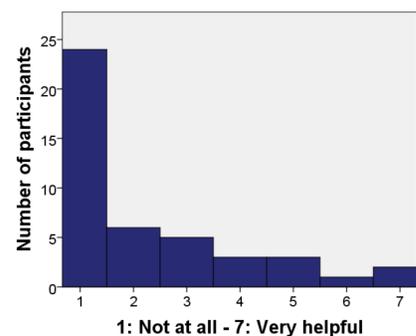
"It's a constant issue, but 'quality of life' is a bit much"

3. Have you ever talked with your audiologist about music listening? (n = 113)



- Positive reports about experience in audiology clinic
- Only 36% had spoken with their audiologist about music listening
- Speech issues prioritised

4. If you have discussed music listening with your audiologist, to what extent has this improved your experience of music? n = 49, M = 2.00 (SD 1.79)



- Increased tailoring is more effective
- Differences emerging between STH and HSH clinics

"seems to be an unsolvable problem in otherwise excellent hearing aids"

Summary and future directions

- Music listening with HAs is 'moderately' problematic (Q1)
- There is larger variance in quality of life ratings (Q2)
- Most HA users had never talked with their audiologist about music (Q3)
- For those who had, outcome ratings for music were low (Q4)
- Interview study to explore patterns of music listening experiences within a representative sample of hearing aid users in the UK population
- Need for an outcome measure to assess sound quality ratings for music using HAs

References

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