

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Tinnitus healthcare: a survey revealing extensive variation in opinion and practices across Europe
AUTHORS	Cima, Rilana FF; Kikidis, Dimitris; Mazurek, Birgit; Haider, Haúla; Cederroth, Chistopher; Norena, Arnaud; Lapira, Alec; Bibas, Athanasios; Hoare, Derek

VERSION 1 – REVIEW

REVIEWER	Ricardo Rodrigues Figueiredo Faculdade de Medicina de Valença, RJ, Brasil
REVIEW RETURNED	11-Feb-2019

GENERAL COMMENTS	<p>Congrats for the valuable work</p> <p>An interesting (though no surprise) finding is the prevalence of otolaryngologists. It would be nice in further works to compare this prevalence with the tinnitus meetings attendance by speciality</p> <p>Paragraph 3, first phrase, is an interesting and couragoeus statement</p> <p>In methods, the paragraph about Patient and Public Involvmnt has some writing issues: an unkown symbol / letter between "working package" and "focused"; I believe a coma is missing after TINNET project; the phrase we actively involved.. should be rewritten: the word "professional" is wrong written</p> <p>Table 2: I see a tendency toward seeing tinnitus as peripheral rather than central symptom in South and East, and in Northern Europe the perception is more balanced (which, by the way, is also my way of seeing tinnitus too)</p> <p>Page 13, line 39 - the perception of hyperacusis in less than 1 % is a very challenging finding, could be better addressed in the text</p> <p>Glad to see that hypertension is a relevant condition, a fact that is in line with the results of a recent article - https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5050200/</p> <p>Finally, I believe this nice work could be extended to other continents, to allow for a worldwide analysis of tinnitus care</p>
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REVIEWER	Elizabeth Marks University of Bath, UK
REVIEW RETURNED	11-Mar-2019

GENERAL COMMENTS	<p>Thank you for this very interesting and timely paper that examines the availability of healthcare services for tinnitus patients across Europe.</p> <p>I think this paper will make a very valuable contribution to the literature, however I have just a few suggestions for amendments prior to this.</p>
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INTRO

P4 line 24, rephrase 'not traceable to disease to 'rarely traceable to disease'.

P4 line 39 rephrase to: A wide range of evidence corroborates the theory that cognitive misinterpretations, negative emotional reactivity and dysfunctional attentional processes are the most significant predictors of tinnitus severity.

RESULTS

P6 line 19: please include the number of participants per country who were involved in seeking participants, either here on in the table – it would be useful to have a sense of how the make up of the TINNET management committee might have impacted on the response rates across Europe.

TABLES

Decimal points should be period (.) and not comma (,) throughout.

I appreciate that the aim of the study is to indicate differences across Europe, but I wonder if it might be interesting to have an additional column in each table that describes the 'overall' N/% of each item, as this will allow the reader to compare levels of Europe-wide practice with area-specific practice.

Page 13: I am interested that the authors did not specifically assess for hyperacusis in the study, although this is a relatively uncommon problem (estimates lie at 2% of the adult population), rates do tend to be higher in individuals reporting tinnitus. I see that rates of reported hyperacusis were low (<1%) however this was not specifically asked about. I would see this as a limitation to the study, and would suggest this be added as a limitation, or could the authors justify why hyperacusis / sensitivity to sound was not included as a separate item on the the list of questions about conditions taken into consideration in tinnitus diagnostics.

Page 16 (table 8) – I'm not sure what the term 'dummy coding' refers to in legend of the table, please could the authors clarify.

DISCUSSION

The authors make the interesting point that their findings indicate that in many places, it is difficult for patients to identify the most appropriate professionals / clinics. This is hugely important considering the role of uncertainty, the healthcare journey and catastrophic interpretations of tinnitus associated with tinnitus severity and chronicity. Could the authors add in something here highlighting how the lack of clear referral pathways may be a reason for ongoing tinnitus distress, severity and chronicity (i.e the clinical problem is not only not being responded to by current healthcare provision but that evidence suggests that it may even be made worse by this).

Page 20 line 12 – dis-satisfaction should be dissatisfaction

	<p>Page 20, line 35 – do the authors have evidence to support the claims that the ‘problem is better understood, patients are better recognised, or suffering is taken more seriously’? I appreciate that this authors suggest this ‘might’ be the case, but I think this needs to be phrased more carefully, the hypotheses better justified and / or supported by evidence. Is it fair to see differences in understanding, recognition and appreciation of suffering as the most likely factors underpinning differences seen in economic prosperity? If the study did not explore such particular aspects of healthcare professional’s understanding of, or attitudes towards tinnitus related distress then this perhaps could be something to mention, and perhaps consider in terms of future research.</p>
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REVIEWER	richard tyler university of iowa, USA
REVIEW RETURNED	19-Mar-2019

GENERAL COMMENTS	<p>Abstract The biggest impact is likely the lack of reimbursement. This should be in the abstract. It is not stated what the results were. The discussion does not highlight what the important barriers were. The results should provide numeric findings and significance. You might want to view, as an example, guidelines of the American Psychological Association- Publication Manual.</p> <p>Page 4. Line 7,... “several otologic conditions”. Some might be put off, think the article is biased, and not read the article, because of the statement....Tinnitus and sensorineural hearing loss are not otological conditions! One could argue they are audiological conditions. Line 34. Tinnitus can also interfere with hearing.</p> <p>Line 37. What is a cognitive misinterpretation? When one hears a sound that is not supposed to be there, and cognitively thinks this could be trouble, this is a cognitive truth ??!!</p> <p>Line 38. You miss sleep, one of the four primary functions affected by tinnitus.</p> <p>Page 5 Did you ask about reimbursement?</p> <p>Table2. How do you differentiate whether tinnitus is a symptom or a disease? Can’t it be both? Why is this important?</p> <p>You might consider citing Tyler and Baker, who first documented the wide range of problems experienced by tinnitus sufferers. Tyler, R.S. and Baker, L.J. (1983). Difficulties experienced by tinnitus sufferers. Journal of Speech and Hearing Disorders, 48(2): 150 154.</p> <p>PAGE 11</p> <p>TRT! Not clear what “TRT and includes modified treatment” means? It might be considered that TRT was a modification of</p>
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Tyler, R. S. & Babin, R. W. (1986). Tinnitus. In: C.W. Cummings, J.M. Fredrickson, L. Harker, C.J. Krause and D.E. Schuller (Eds.), Otolaryngology Head and Neck Surgery (3201-3217). St. Louis: C.V. Mosby Co.

Tyler, R. S., & Bentler, R. A. (1987). Tinnitus maskers and hearing aids for tinnitus. *Seminars in Hearing*, 8(1): 49-61.

Tyler, R. S., Stouffer, J. L., & Schum, R. (1989). Audiological rehabilitation of the tinnitus client. *Journal of the Academy of Rehabilitative Audiology*, 22: 30-42.

Which were in place before TRT.

And many who completed the questionnaire might believe that they are using a procedure that evolved from this earlier work, certainly not TRT.

This should be discussed in the Discussion.

And many believe TRT set the field back 25 years. Some of the shortcomings have been highlighted in:

Tyler, R., Noble, W., Coelho, C., & Ji., H. (2012). Tinnitus Retraining Therapy: Mixing Point and Total Masking Are Equally Effective. *Ear Hear* 33(5):588-594

This emphasizes the importance of the questions asked in the survey. The chosen questions will certainly bias the outcomes of the survey.

CBT

17. Which medical/psychiatric conditions are taken into consideration when examining tinnitus patients? (Multiple choice). Options: Hypertension, diabetes, thyroid dysfunction, TMJ disorders, psychological/psychiatric disorders, hearing loss, hyperlipidaemia, dizziness, cervical disorders, migraine, allergy, other

Hearing loss is a "medical" condition???

This might have confused/biased people who completed the questionnaire.

This should be acknowledged and discussed in the Discussion.

19. What are the treatments options for tinnitus patients in your center? (Multiple choice). Options: TRT, CBT, mindfulness, relaxation, coping training, counselling, medication, advise/counselling, alternative therapies, sound therapy, rTMS, neurofeedback, physiotherapy, dental procedure, other

Why was TRT listed and not other options, like TAT. Many from Europe have been taught TAT and use TAT or derivatives of TAT. And the overlap is confusing of the different options in 19.

CBT is counseling.

What is the difference between counselling, and, advise/counselling,

21. Which questionnaires do you use to assess tinnitus severity? (Multiple choice). Options: TQ, TRQ, TFI, THI, TFI, TSCH, HADS, BDI, STAI, VAS scales, Grade from 1 to 10, other

It seems a bit odd that the two Iowa questionnaires, the THI and the TPFQ, were not provided as options, as they are widely used in Europe.
This should be discussed in the Discussion.
The use of the term VAS here, will likely be confusing to many. VAS is one of several psychophysical procedures that can be used to estimate the magnitude of a response on a questionnaire. VAS is only one. Some of the scales mentioned use VAS. The same comment can be made for the scale 0-10. Why not 0 to 100, with more resolution? These issues need to be discussed in the Discussion.

Page 12

I am confused by the labeling of the treatments, and I wonder if the respondents were as well.

Isn't CBT counseling?

Why just TRT? Likely many were using TAT, and they would not know how to respond.

This should be addressed in the conclusions.

Something like...TAT was omitted from the choices provided for Treatments, and it is not certain if those that used TAT checked counseling CBT or some other approach.

Some readers might not know what a sophrologist is.

Page 13

What is the difference between hyperacusis and sensory hypersensitivity?

Page 15

The THI was the most frequently used of the ones you asked, but you did not ask about all of the frequently used ones.

You should add. It might also be that clinics used the THQ, as this has been widely translated (and has been shown to be more sensitive than the THI), although this was omitted from the questionnaires.

Tyler, R. S., Noble, W. G., & Coelho, C. (2006). Considerations for the Design of Clinical Trials for Tinnitus. *Acta Oto-Laryngologica*, 126: 44-49.

Tyler, R. S., Oleson, J., Noble, W., Coelho, C., & Ji, H. (2007). Clinical trials for tinnitus: Study populations, designs, measurement variables, and data analysis. *Progress in Brain Research*, 166: 499-509.

Line 45.

You should change the wording ... the recently developed TFI and the more recently developed TPFQ.

Page 19

Line 31,

You should add ..."although it might be that questionnaires were used that were not included in our list, such as the THQ and the TPFQ.

Page 21

Facilitators.

"Tinnitus is central auditory symptom."

Not clear what this means. Likely in most cases, the cause of the tinnitus is in cochlea. The perception of the tinnitus is in the temporal lobe and the reactions occur in other parts of the brain.

VERSION 1 – AUTHOR RESPONSE

Response to reviewer #1:

We thank the reviewer for his positive comments and useful suggestions.

Comments

1. This reviewer provided helpful corrections in the text.

Response:

We have changed the text accordingly

Changes in the text:

On page 6, in the last paragraph the changes are highlighted in the text.

2. We thank the reviewer for pointing out this observation

3. We thank the reviewer for the remark on hyperacusis.

Response:

Indeed, one would expect that hyperacusis would be listed as one of the main conditions of importance while managing tinnitus. However, respondents mentioned mainly other conditions. Since this is the results section and since we do not have more information as to why this was the case, we feel, at this time we cannot speculate. It would be an interesting topic to address in a subsequent study.

Response to reviewer #2

We are thankful to this reviewer for her helpful comments and valuable remarks

Comments:

1. On the INTRODUCTION: The reviewer pointed out some helpful changes in phrasing

Response:

We changed the text accordingly

2. Comment on the RESULTS section:

The reviewer requests for more information on the number and country of origin of participants who were involved in seeking participants.

Response:

This is indeed a valid point and would offer an interesting perspective. We have unfortunately no data on this issue. We did ask the management committee (2 individuals per participating country in the TINNET-project) to help with recruitment indeed. We specifically asked them to spread the message that the survey was taking place, and to spread the recruitment text to their contacts and professional institutes/organisations. However, we have no data on who, and how many of the management committee actually did, who they spread our recruitment text to, nor do we know how further recruitment took place. Furthermore, we did not ask participants who they were recruited by, or how they were informed about the survey.

3. Comments on TABLES

a. Decimal points should be period (.) and not comma (,) throughout.

Response: Thank you for pointing this out. We checked the tables and changed when needed.

b. The reviewer indicates that she appreciates that the aim of the study is to indicate differences across Europe, but wonders if it might be interesting to have an additional column in each table that describes the 'overall' N/% of each item, as this will allow the reader to compare levels of Europe-wide practice with area-specific practice.

Response:

We included in table 1 the percentages (of the total) of participants per country and per region. In the following tables we included per region, the percentages per item, where this was relevant (tables 2 to 7). We are not sure what additional information the reviewer is referring to /missing in this respect.

c. The reviewer asks clarification on the term 'dummy coding' in table 8

Response:

We thank the reviewer for pointing this out. There was no need for dummy-coding. There was a need to recode the response sets into categories, which we describe in the legend of the table.

Changes in text:

In this case we categorized answers and re-coded them to be able to include the variables in the regression analyses. We changed Dummy coding to Coding in the legend of table 8.

4. The reviewer asks why we did not specifically assess for hyperacusis in the study.

Response:

From the start of the project consensus was to focus on tinnitus only. Since tinnitus is a highly co-morbid symptom, there was indeed discussion on whether to include specific questions/ assessments on hyperacusis, and other often coinciding symptoms (like vertigo). It was decided that this would fall outside the scope of the current study and study aims, and these topics would need a separate independent similar study in their own right. For this reason we did not specifically assess hyperacusis.

5. Comments on the DISCUSSION

a. The authors make the interesting point that their findings indicate that in many places, it is difficult for patients to identify the most appropriate professionals / clinics. This is hugely important considering the role of uncertainty, the healthcare journey and catastrophic interpretations of tinnitus associated with tinnitus severity and chronicity.

Response:

We agree with this point and added to the text in the first paragraph of the discussion section:

Changes in text:

On page 17, first paragraph we added the following text to the first paragraph:

The lack of knowledge of existing specialised clinics also points to difficulties patients are likely to encounter in identifying the most appropriate healthcare. An uncertain healthcare journey and the lack of clear referral pathways is likely to exacerbate ongoing tinnitus distress, severity and chronicity.

b. On page 20 line 12 – dis-satisfaction was changed to dissatisfaction

c. The reviewer points out that on Page 20, line 35 – the line ‘problem is better understood, patients are better recognised, or suffering is taken more seriously’ might be an unfair way to see differences in understanding, recognition and appreciation of suffering as the most likely factors underpinning differences seen in economic prosperity

Response:

We agree with this valid point

Changes in text:

The sentence was deleted

Response to reviewer #3

We thank this reviewer for the useful remarks and suggestions.

Comments on the abstract:

1. The reviewer suggests that the biggest impact is likely to be ‘lack of reimbursement’.

Response:

We are not sure on what specifically the ‘lack of reimbursement’ would have an impact.

Changes in text:

We were not sure what exactly to change or add. Therefore, we did not make changes yet.

2. The reviewer points out that we did not state results in the abstract

Response:

The main results of the study were the significant differences in opinions on, definitions of, and agreement about assessment and organization of tinnitus health-care across Europe. We believe that we have stated this in the results section of the abstract. Since the survey was extensive, descriptions on detailed results per assessment would not be possible because of the editorial limit in word-count for the abstract (which is now exactly 300 words).

3. The discussion does not highlight what the important barriers were.

Response: Now the abstract is structured according to the editorial rules of BMJ. The 'Discussion' section has been replaced by a 'Conclusion' section, which now lists the main conclusions of the study.

4. The reviewer notes that the results-section should provide numeric findings and significance.

Response:

The method we used is the execution of a survey. Unfortunately, we cannot provide results as this reviewer requests, since the methodology we used does not lead to this type of summary of results. We are not able to provide a summary of findings (differences in means, sd's and effect-sizes) as is common when reporting results of RCTs for example. We can only provide descriptive results, which are too many to list in the abstract.

5. The reviewer points out just to mention that otological disorders might not be sufficiently adequate.

Response: We agree that audiological disorders are also important to mention

Changes in text:

We added audiological disorderders in the text.

6. The reviewer remarks that Tinnitus can also interfere with hearing.

Response:

We thank the reviewer for pointing this out. We described the most reported difficulties, in most tinnitus patients, with and without hearing loss.

7. The reviewer asks about cognitive misinterpretations.

Response:

A cognitive interpretation is the tendency to interpret signals and or events as overly threatening/extremely damaging or negative

8. The reviewer points out that sleep disturbances are also very common in tinnitus patients

Response:

we agree with this point, and refer this reviewer to a previous section in the text where we mention that 'Patients report difficulties in concentration, being anxious and distressed, difficulty sleeping,...'

9. The reviewer asks whether we assessed reimbursement-options

Response:

Yes we did. See also question 22 in the Survey (in the supplemental information) and the following section (pages 9 and 10): National healthcare structure

Across all three regions of Europe, tinnitus healthcare is in most cases financed by national health insurances. This was particularly evident for eastern countries where 90.8% of respondents reported that their service is publicly funded. Privately funded treatment is most common in southern Europe (48%) (Supplemental Information 3).

10. The reviewer asks: How do you differentiate whether tinnitus is a symptom or a disease? Can't it be both? Why is this important?

Response:

Tinnitus is a symptom and not a disease. Asking about it gives us an idea on whether healthcare is mainly focused on biomedical interventions or whether the biopsychosocial approach is adopted.

11. We thank the reviewer about the information provided about TRT and the difficulties assessing in any instance how this is applied in practice.

12. The reviewer points out that using 'Medical condition' to categorize hearing loss under might be misinterpreted.

Response:

In Europe, hearing loss is considered a medical condition, and a 'medical diagnosis' is often needed for prescription of hearing devices for example. We think that the risk for misinterpretation is quite small.

13. The reviewer points out TAT as an intervention.

Response:

We are unaware of TAT being widely implemented. We developed the survey with a group of tinnitus experts from academic, clinical and policy institutes (or combinations thereof). None of these mentioned TAT. The eventual survey was based on consensus of all experts involved and it took extensive rounds to get to the final version.

14. The reviewer believes CBT is counselling

Response:

CBT is not counselling, CBT is a collection of psychological treatments or interventions. Counseling is informational and educational mainly. Indeed, as the reviewer notes, counseling mainly consists of giving advice and practical information. CBT interventions usually start with psychologically informed education (which one could consider counselling), after which actual active treatment elements are provided. Furthermore, CBT is not only 1 treatment, it is a collective term used to describe a group of treatments/interventions based on both the cognitive sciences and the behavioural traditions.

15. The reviewer asks why we chose to include the questionnaires we did

Response:

We based this particular question partly on a study by Hall et al (Hall, D.A., et al., Systematic review of outcome domains and instruments used in clinical trials of tinnitus treatments in adults. *Trials*, 2016. 17(1): p. 270.), which was ongoing at the time of the TINNET project. Some of the working group working on this study were also involved in the development of the survey. We were very fortunate to have this opportunity to work together with many specialists, and across the different working groups of the TINNET project. The list of questionnaires was meticulously selected and discussed within these group until consensus was reached.

16. The reviewer asks about the difference between hyperacusis and sensory hypersensitivity?

Response:

Hyperacusis pertains to an increased/hyper sensitivity of acoustic stimuli. Sensory hypersensitivity pertains to an increased/hyper sensitivity of any type sensory stimuli, not only acoustic.

17. The Reviewer asks about why we included the THI and not other questionnaires.

Response:

Here, we refer to our answer to comment 15

18. The reviewer does not understand why we believe that the adoption of the viewpoint that tinnitus is a central auditory problem facilitates implementation of future guidelines

Response:

As at present is generally adopted, tinnitus is a central auditory problem and not peripheral. If experts adopt this viewpoint, future treatment implementation aimed at central processes will be more readily adopted.

VERSION 2 – REVIEW

REVIEWER	richard tyler University of Iowa
REVIEW RETURNED	10-Sep-2019

GENERAL COMMENTS	<p>1.9. I do think reimbursement is an issue, and should be discussed in more detail.</p> <p>6. I don't think your discussion is clear enough, that tinnitus can affect hearing in addition to the hearing loss. You should site Tyler, R., Ji, H., Perreau, H., Witt, S., Noble, W., & Coelho, C. (2014). Development and validation of the Tinnitus Primary Function Questionnaire. <i>American Journal of Audiology</i>, 23, 260–272.</p> <p>8. I understand you mentioned it earlier, I thought given how common it is, I thought it could be mentioned here as well.</p> <p>11. please discuss this in your article</p>
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	<p>12. I disagree that Europe using the term medical. I worked in Europe and know many people who do, and we would all agree that tinnitus is health condition.</p> <p>13. I am aware that TAT is widely used in Europe. You should mention in your article. It should also be appreciated that there were likely tinnitus counseling procedures that are used that were not included in our survey, such a Tinnitus Activities Treatment (Tyler et al., 2007; 2006). Tyler, R.S., Gogel, S.A., & Gehringer, A.K. (2007) Tinnitus activities treatment. Progress in Brain Research, 166: 425-434 Tyler, R. S., Gehringer, A. K., Noble, W., Dunn, C. C., Witt, S. A., & Bardia, A. (2006). Tinnitus Activities Treatment. Chapter 9. In R.S.Tyler (Ed.), Tinnitus Treatment: Clinical Protocols (116-132). New York: Thieme.</p> <p>14. You need to state in your article that “CBT is not counseling.”</p> <p>18. I remain confused about your discussion emphasizing that tinnitus is a central problem. The psychological model of Tyler, R. S., Aran, J-M., & Dauman, R. (1992) and Dauman and Tyler (1992) clearly distinguished the tinnitus from the reactions to tinnitus. We made the point that the reactions must involve many areas of the brain. Please site these references where we emphasize the central components of tinnitus. Dauman, R. & Tyler, R. S. (1992). Some considerations on the classification of tinnitus. In: J-M. Aran & R. Dauman (Eds.), Tinnitus 91 - Proceedings of the Fourth International Tinnitus Seminar (225-229). Amsterdam: Kugler Publications. Tyler, R. S., Aran, J-M., & Dauman, R. (1992). Recent advances in tinnitus. American Journal of Audiology, 1(4): 36-44. I hope you find my comments helpful. I would be happy to send reprints if needed. Rich-tyler@uiowa.edu Rich Tyler The University of Iowa</p>
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VERSION 2 – AUTHOR RESPONSE

Response to reviewer #3

We thank this reviewer for the additional remarks and suggestions. We have listed the current comments in the table below

The reviewers comments	Previous response	Current response
Please state any competing interests or state 'None		We point to page 23 in the manuscript, where we state:

<p>declared':</p> <p>none</p>		<p>Competing Interests</p> <p>All authors have declared that there are no competing interests.</p>
<p>1.9. I do think reimbursement is an issue, and should be discussed in more detail.</p>	<p>The reviewer suggests that the biggest impact is likely to be 'lack of reimbursement'.</p> <p>Response:</p> <p>We are not sure on what specifically the 'lack of reimbursement' would have an impact.</p> <p>Changes in text:</p> <p>We were not sure what exactly to change or add. Therefore, we did not make changes yet.</p>	<p>We appreciate the remark, and agree that lack of reimbursement for treatment might affect for example treatment-types available or developments/implementation of treatment types. This in fact merits a separate study. We did indeed ask in the survey how patients payed for tinnitus assessment/treatments. Please see page 8/9: under the heading 'National healthcare structure', as well as the figure in supplemental information 3. However, we did not assess whether in experts opinion a possible lack of reimbursement was detrimental or benefitted treatment options (which might be the case in privately financed clinics), it is therefore not highlighted in the text.</p>
<p>6. I don't think your discussion is clear enough, that tinnitus can affect hearing in addition to the hearing loss. You should site</p> <p>Tyler, R., Ji, H., Perreau, H., Witt, S., Noble, W., & Coelho, C. (2014). Development and validation of the Tinnitus Primary Function Questionnaire. American Journal of Audiology, 23, 260–272.</p>	<p>The reviewer remarks that Tinnitus can also interfere with hearing.</p> <p>Response:</p> <p>We thank the reviewer for pointing this out. We described the most reported difficulties, in most tinnitus patients, with and without hearing loss.</p>	<p>We appreciate the comment and agree that Tinnitus can affect perceptual experiences of individuals, whether it be hearing, mood, well-being, ability to concentrate, sleep quality, to name a few. This study however is a survey of opinions of professionals across Europe. This survey sought to collate details and opinions on healthcare structure and clinical practices for tinnitus across Europe. The mechanisms and variables underlying the tinnitus complaints are not the main topic of the current study. We did not ask whether professionals think hearing, in addition or irrespective of hearing loss, is affected by tinnitus. It is therefore not part of the discussion, since it is somewhat outside the scope of the main topic of the manuscript.</p>

<p>8. I understand you mentioned it earlier, I thought given how common it is, I thought it could be mentioned here as well.</p>	<p>The reviewer points out that sleep disturbances are also very common in tinnitus patients</p> <p>Response:</p> <p>we agree with this point, and refer this reviewer to a previous section in the text where we mention that ‘Patients report difficulties in concentration, being anxious and distressed, difficulty sleeping,...’</p>	<p>Our response above is relevant here as well. This survey sought to collate details and opinions on healthcare structure and clinical practices for tinnitus across Europe. The mechanisms and variables underlying the tinnitus complaints are not the main topic of the current study, such as sleeping disturbances, hearing disability, actual or perceived, mood, attentional difficulties, to name a few. It is therefore not part of the discussion, since it is somewhat outside the scope of the main topic of the manuscript.</p>
<p>11. please discuss this in your article</p>	<p>1. We thank the reviewer about the information provided about TRT and the difficulties assessing in any instance how this is applied in practice.</p>	<p>We did not assess the difficulty of applying TRT in practice, nor the professional’s opinions about this. It is therefore not highlighted in the paper.</p>
<p>12. I disagree that Europe using the term medical. I worked in Europe and know many people who do, and we would all agree that tinnitus is health condition.</p>	<p>The reviewer points out that using ‘Medical condition’ to categorize hearing loss under might be misinterpreted.</p> <p>Response:</p> <p>In Europe, hearing loss is considered a medical condition, and a ‘medical diagnosis’ is often needed for prescription of hearing devices for example. We think that the risk for misinterpretation is quite small.</p>	<p>Correct, Tinnitus is indeed a health condition. However, hearing loss is a medical condition, which was referenced by this reviewer in his initial remark. We do not categorize tinnitus as a medical condition anywhere in the text.</p>
<p>13. I am aware that TAT is widely used in Europe.</p> <p>You should mention in your article.</p> <p>It should also be appreciated that there were likely tinnitus counseling procedures that are used that were not included in our survey, such a Tinnitus</p>	<p>The reviewer points out TAT as an intervention.</p> <p>Response:</p> <p>We are unaware of TAT being widely implemented. We developed the survey with a group of tinnitus experts from academic, clinical and policy institutes (or combinations thereof). None of these mentioned TAT. The eventual survey was based on consensus of all experts involved</p>	<p>We currently report on details and opinions on healthcare structure and clinical practices for tinnitus across Europe. We hope to remain true to the responses and descriptive as we received them and reached consensus about. TAT was never mentioned, nor came it up in the results, or in discussion/consensus rounds. Therefore, we do not include this in the current report, since we aim to report on the opinions of</p>

<p>Activities Treatment (Tyler et al., 2007; 2006).</p> <p>Tyler, R.S., Gogel, S.A., & Gehringer, A.K. (2007) Tinnitus activities treatment. Progress in Brain Research, 166: 425-434 Tyler, R. S., Gehringer, A. K., Noble, W., Dunn, C. C., Witt, S. A., & Bardia, A. (2006). Tinnitus Activities Treatment. Chapter 9. In R.S.Tyler (Ed.), Tinnitus Treatment: Clinical Protocols (116-132). New York: Thieme.</p>	<p>and it took extensive rounds to get to the final version.</p>	<p>professionals in Europe and the state of the art in their vision.</p>
<p>14. You need to state in your article that “CBT is not counseling.”</p>	<p>The reviewer believes CBT is counselling</p> <p>Response:</p> <p>CBT is not counselling, CBT is a collection of psychological treatments or interventions. Counseling is informational and educational mainly. Indeed, as the reviewer notes, counseling mainly consists of giving advice and practical information. CBT interventions usually start with psychologically informed education (which one could consider counselling), after which actual active treatment elements are provided. Furthermore, CBT is not only 1 treatment, it is a collective term used to describe a group of treatments/interventions based on both the cognitive sciences and the behavioural traditions.</p>	<p>As stated earlier, we sought to collate details and opinions on healthcare structure and clinical practices for tinnitus across Europe. In other words, this report concerns a health services evaluation. We did not ask about or evaluate whether professionals in tinnitus healthcare were informed on what the differences between counselling and CBT are. Therefore, it is not relevant within the aims and scope of the current report. The topic in itself is of course very interesting and merits a separate study.</p>
<p>18. I remain confused about your discussion emphasizing that tinnitus is a central problem.</p>	<p>The reviewer does not understand why we believe that the adoption of the viewpoint that tinnitus is a central auditory problem facilitates implementation of future guidelines</p>	<p>In this section we aim to report that there is consensus on this issue. Most respondents adopt the view that the problem (chronic tinnitus disability) is of a central nature. Consensus helps in addressing the topic in the future</p>

<p>The psychological model of Tyler, R. S., Aran, J-M., & Dauman, R. (1992) and Dauman and Tyler (1992) clearly distinguished the tinnitus from the reactions to tinnitus. We made the point that the reactions must involve many areas of the brain.</p> <p>Please site these references where we emphasize the central components of tinnitus.</p> <p>Dauman, R. & Tyler, R. S. (1992). Some considerations on the classification of tinnitus. In: J-M. Aran & R. Dauman (Eds.), Tinnitus 91 - Proceedings of the Fourth International Tinnitus Seminar (225-229). Amsterdam: Kugler Publications.</p> <p>Tyler, R. S., Aran, J-M., & Dauman, R. (1992). Recent advances in tinnitus. American Journal of Audiology, 1(4): 36-</p>	<p>Response:</p> <p>As at present is generally adopted, tinnitus is a central auditory problem and not peripheral. If experts adopt this viewpoint, future treatment implementation aimed at central processes will be more readily adopted.</p>	<p>and implementing new/improved definitions/treatment options. We thank the reviewer for pointing out that this might be confusing in the text. We therefore added a sentence to the discussion.</p> <p>Changes in text:</p> <p>On page 18, beginning of paragraph 2, we added:</p> <p>In all regions, most experts report that in their opinion tinnitus is a central auditory symptom, which might indicate agreement between the regions, and offers a first facilitator.</p>
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