Author's response to reviews

Title: Prevalence of hearing loss induced by high sound pressure levels among people working with sound systems and general population in Brazil: a cross-sectional study.

Authors:

Regina P El Dib (re.lucci@terra.com.br)
Edina MK Silva (edinaksilva@terra.com.br)
Jose F Morais (jfmorais@pucsp.br)
Virginia FM Trevisani (vmoca@uol.com.br)

Version: 5  Date: 19 February 2008

Author's response to reviews: see over
Covering letter of the revised article MS: 6959209031564007

Prevalence of hearing loss induced by high sound pressure levels among people working with sound systems and general population in Brazil: a cross-sectional study

Regina El Dib

Date: 10th February 2008.

Subject: 2nd Reply to Referee’s comments

Note: The amended passage from the article was copied and pasted to this letter.

Note 2: We provided an excellent correction regards the English grammar in the Main Manuscript and Abstract through a native-English professional translator.

Dear Dr J. A. Le Good,

Thank you very much for the second revision. See below the reply for Peter Rabinowitz’s and Esko Matti Toppila’s comments. As you and the peer reviewers were fundamental for the improvement of this article we were happy to inserted your names in the acknowledge session of this article. Thank you again.

Sincerely yours,
Regina El Dib

Reply for Peter Rabinowitz’s comments

1) Acknowledge that residual confounding could partly explain results

Please, see below the two amended passages in red color where we addressed this point (in the discussion, conclusion and abstract’s conclusion). We appreciated very much your suggestion about this item, it increase the quality of our study. Thank you very much.
[Discussion] The effect of the music on sound professional’s hearing was found to be greater in this study than in other studies such as Cunningham, 2006\(^{(15)}\), maybe because most of the sound professionals evaluated in this study work or worked in open shows events, i.e., in places where the sound is extremely higher and prejudicial. Other study limitations might include residual confounding by different socioeconomic status level between both groups studied. This could partly explain the results regarding the presence of hearing loss induced by elevated sound pressure levels found very higher in the sound professionals.

[Conclusion] (1) This study suggests that the sound professionals presented a higher prevalence of induced hearing loss by elevated sound pressure levels compared to the general population, although the possibility of residual confounding due to unmeasured factors such as socioeconomic status cannot be ruled out.

[Abstract’s Conclusion]: The sound technicians presented a higher prevalence of hearing loss induced by elevated sound pressure levels than did the general population, although the possibility of residual confounding due to unmeasured factors such as socioeconomic status cannot be ruled out.

2) Explain finding of differences in ototoxic exposures

Sorry for that, it was our mistake, we entered the ototoxic’s values wrong last time (at the first corrections). We already reviewed all the values from each outcome to check if it were okay. Please, see below the right values with regards the ototoxic exposures. I already stated in the manuscript that there was no statistic difference between both groups regarding this outcome. Sorry for that again.

<table>
<thead>
<tr>
<th>Ototoxic exposure</th>
<th>No</th>
<th>87,8</th>
<th>84</th>
<th>88,4</th>
<th>&gt; 0,05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>10</td>
<td>12,0</td>
<td>11</td>
<td>11,6</td>
<td></td>
</tr>
</tbody>
</table>
3) Language corrections.

We provided another revision of the English. In this time we sent the manuscript to a professional in translations and also a native-English, David Elliff, to improve the English grammar. I hope the revised manuscript is now in conforms to the journal requirements.

Reply for Esko Matti Toppila’s comments

1. We already change the word patient to subject in the whole text and tables.

2. ET26. Thank you for made it clear and sorry if I not understood in the last revision. Well, we added the definition of tinnitus and how we assess it. Please, see the amended passage in red color below in the session methods. Thank you again.

   “Basic tinnitus assessment was performed including an audiologic evaluation, and a self-reported assessment. We also defined tinnitus as a ringing or other type of noise generated within the head.”


3. With regards to SNHL vs NIHL, We keep with the term NIHL (as also it is state in the title) because in this study we would like to know the hearing loss causing by elevated sound pressures and our main group was the sound professions. However, we also agree with the reviewer, so we changed our phrase addressing the suggestion made by the reviewer in ET24 and ET32 keeping his idea. Besides that, we also changed the phrase regarding the table 3. Please, see it below in red color.

   “The subject was regarded to have a hearing loss in cases whose audiograms in the frequencies 3000 and/or 4000 and/or 6000Hz presented hearing thresholds above
25dB(A) and more elevated than in other tested frequencies, having those being compromised or not, both in the air test and in the bone test, in one or both ears \(^{(4)}\)."

“The Table 3 reveals the distribution of participants according to the presence of hearing loss in both studies groups.”

**Table 3** – Distribution of participants according to the presence of hearing loss.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sound Professionals</th>
<th>Non-sound Professionals</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence of NIHL</td>
<td>N=82</td>
<td>N=95</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>41</td>
<td>85</td>
<td>&lt;0,001*</td>
</tr>
<tr>
<td>Yes</td>
<td>41</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

4. Thank you very much for send me the reference from ACGIH. However, I found in the internet the reference Health and Safety Guidelines and we prefer to use it in the place of ACGIH. I hope there is no problem. Please see the amended passage and the reference below:

“A worker exposed to a noise level of 85 dB possesses maximum daily average exposure permissible of only 8 hours and, a worker exposed to a noise level of 103 dB possesses maximum daily average exposure permissible of only 7.5 minutes \(^{(18)}\).”