VOLUME-8, ISSUE-1, JANUARY-2019 • PRINT ISSN No 2277 - 8160

Original Research Paper

Social Science

STUDY OF AUDITIVE PROFILE OF CRAFT FISHERMEN WOMEN OF MANACAPURU MUNICIPALITY-AM

Luana Lylamane De Souza E Souza

Ana Paula Viana Da Silva*

*Corresponding Author

Raimunda Francisca Costa Da Silva

ABSTRACT This scientific article aims to study the auditory profile of women working in the artisanal fishery process participants of the Association of Fishermen and Fishermen Handicrafts of the municipality of Manacapuru - AM, in the age group of 18 to 71 years, in the year 2016. Method: Treats - a descriptive and cross - sectional field study was carried out through audiological evaluation, including meatoscopy, tonal audiometry and transient evoked otoacoustic emissions in artisanal fishermen from the city of Manacapuru (AM), where 19 women with age group were evaluated From 18 to 71 years of age. RESULTS: Among the subjects studied, 26.3% presented PAIRO, 52.63% had sensorineural hearing loss, 42.10% had hearing loss in frequencies where bone was not evaluated and 10.6% presented mixed hearing loss. Conclusion: Further studies on this population are suggested to ascertain possible evolution of diagnosed sensorineural hearing loss, for PAIRO audiometric curves typical of PAIRO.

KEYWORDS : Fishing. Noise. Otoacoustic Emissions. Audiometry. Loss Hearing.

INTRODUCTION

Feminist movements have been growing rapidly, and has a large part in the fight for the recognition of female work. Thus, the woman has been linked in a direct way in the process of material production of society, which has generated a huge range of rebuilding and relevant modifications in the social structure. (RAMOS et al, 2014)

In this way, the work sphere and the politics in which women currently take part in the increasing female insertion in fishing activities and collection, in the river, Mangue and Sea, draws attention to the research on this theme, as far as the handmade fishing is seen as typically male by society. (CAVALCANTI, 2010)

According to Brazil (2015) fishing is one of the oldest socioeconomic activities developed historically by the Amazonian people who experience the margins of the rivers in the regions of firm or the varroseas, leading their lives and producing their places in the correlation with water, the earth and the forest.

The fishing activity requires long continuous work days, almost always surplusing at 8 hours per day, period of which the fisherman is subjected to high levels of the pressure machining of the vessels. This exhibition occurs practically in all stages of the work, ie from the displacement of its place of origin during the catch of the fish and even while resting, because in the hours of rest within the boat, the engine of the vessel continues to operate.

According to the Ministry of Health (2006) "when the noise is intense and exposure to it is continued, on average 85 dB (a) for eight hours a day, internal earnings, occur with the internal ear, which determine the occurrence of PAUR (CID 10-H83.3)".

The adverse conditions of the work, since absence of protection equipment to the human behavior itself, in addition to the hostile environment make this activity unhealthy, causing serious and impacting consequences for the health of the worker, including those related to hearing health. As a result of the excessive exposure to noises during the extensive workday in the vessel, the fisherman may manifest the hearing and extra-auditory effects of noise which are irreversible hearing loss, tinnted, difficulty understanding speech, intolerance to intense sounds, dizziness, digestive problems, headache, among others.

Speech-language pathology in health surveillance of the worker predisposes the identification of the factors that determine the health of the worker, for the elaboration of preventive programs and actions, and for the promotion of hearing health - Auditory Conservation Program.

Therefore, through a survey conducted on the audiological profile of artisanal fishermen in the municipality of Manacapuru (AM) in 2016, this study was developed, analyzing the prevalence of hearing loss in women in the aforementioned research, and participating in the process since in addition to women's work in fishing is often stigmatized by the vision of being an extension of the role of mother / wife / housewife overlapping the fishing activity by devaluing this category, the work in these boats exposes the same to the engine noise for long periods, making them vulnerable to occupational noise induced hearing loss, becoming a major problem in public health (FIGUEIREDO, 2014), as well as being an unpublished study on this population.

METHODS

The present work is a cross-sectional study of the descriptive study, from the data collection of the research under CAAE 54799016.7.0000.0007 / 2016, which was performed through audiological evaluations, such as meatoscopy, tonal audiometry and otoacoustic emissions evoked transients. Participants were fishermen working in the artisanal fishery process participants of the Association of Fishermen and Fishermen Handicrafts of the municipality of Manacapuru- Am. Initially there was a meeting with the fishermen to clarify the research, and after the meeting, 40 fishermen proposed to participate of the research, and of these 40 fishermen, 19 were women.

These 19 fishermen agreed to sign the Informed Consent Form (TCLE), and after signing the TCLE, the protocol of auditory habits was performed, followed by audiological exams such as meatoscopy, tonal audiometry, and evoked otoacoustic emissions transients. The auditory habits protocol contained the following information, name of the respondent, age, gender, speech difficulty, dizziness, presence of tinnitus, time of exposure to noise, use of ear protectors and general health information. For the examinations, the fishermen had acoustic rest 14 hours. Tonal audiometry was assessed by the method of (Davis and Silverman, 1970) for degree of

loss, classifying normal hearing level up to 25 dB, light hearing loss 26 to 40 dB, moderate hearing loss of 41 to 70 dB, loss hearing loss from 71 to 90 dB, deep hearing loss above 91 dB. Portary nº 19 was used to evaluate what was PAIR-O (Occupational Noise-Induced Auditory Loss) and what was not PAIR-O. Tonic audiometry was performed in the following frequencies: 250, 500, 1,000, 2,000, 3,000, 4,000, 6,000 and 8,000 Hz for airway, and in the frequencies of 500 to 4,000 Hz for the bone path, using a calibrated audiometer, model AVS 500. For reports, assumptions were used according to the Audiology Manual, 2017.

In transient evoked otoacoustic emissions, the signal / noise parameter, greater than or equal to 4 (dB), was used. The click, non-linear, with intensity around 80 dBNPS, was used as stimulus in the frequencies ranges from 1,000 to 4,000 Hz, model OTOREAD, brand INTERACOUSTICS.

Regarding the inclusion, they were female patients, aged between 18 and 71 years, who agreed to sign the Informed Consent Term (TCLE). The exclusion criteria were patients less than 18 years of age or older than 71 years of age, and those who were not able to perform all steps: meatoscopy, tonal audiometry, transient evoked otoacoustic emissions, and a questionnaire auditory habits.

The data collected were statistically analyzed. Pearson's Chi-Square test was used to verify the relationship between hearing loss and variables. The correlation between the PAIRO cases and the suppression effect OAE-T results was found using the Pearson correlation coefficient. In all comparisons a level of 5% significance was considered for decision making.

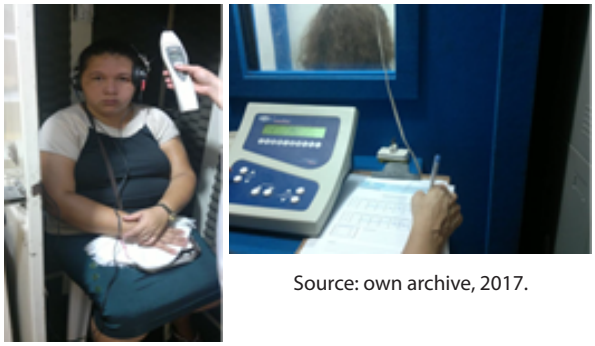
RESULTS

Table 1. Comparative Analysis Between Results of Transient Evoked Otoacoustic Emissions and Prevalence of Hearing Loss.

Hearing Loss Typs	OD	OE
PA in frequencies without V.O.	21,05%	21,05%
PAN	21,05%	36,84%
PAM	5,26%	0,0%

***PA= Hearing Loss, *PAN= Neurosensory Hearing Loss , *PAM=Mixed hearing loss, *V.O.= Bone pathway.**

Table 1 shows the results of transient otoacoustic emissions, where the PASS / REFER criterion was used. It was verified that among the hearing loss in frequencies without evaluation of bone path (250Hz, 6KHz and 8KHz), 21.05% were classified as absent (refer) bilaterally. Concerning neurosensory hearing loss, 36.84% were classified as absent in the left ear and 21.05% in the right ear. Concerning mixed hearing loss, 5.26% were classified as absent in the left ear.



Source: own archive, 2017.

Table 2. Auditory Profile in the Female Population of Evaluated Workers

Gender	Yes	%	No	%	Total
1-PAN (non-especified causes)	10	52.63%	9	47.36%	19
2-PA	8	42.10%	11	57.89%	19
3-PAIRO	5	26,31%	14	73.68%	19
4-PAM	2	10.52%	17	89.47%	19

1.PAN= Hearing Loss Neurosensoryl, 2.PA= Hearing loss, 3.PAIRO= Occupational Noise-Induced Hearing Loss, 4.PAM= Mixed hearing loss

In Table 2, it can be observed in relation to the characterization of the auditory profile of hearing loss, with sensorineural hearing loss being the most prevalent, occurring in 52.63% of this population. Still, hearing loss occurs in second place in the prevalence, with 42.10% of cases. Occupational noise induced hearing loss - PAIRO, occurred in 26.31% of the individuals evaluated, and only 10.52% of the samples presented mixed hearing loss.

DISCUSSION

According to Table 1, there are transient evoked otoacoustic emissions data, with absent results for sensorineural hearing loss, with 36.84% of the failures (refer) in the left ear. This result corroborates with numerous literatures that make the interconnection between this audiological examination and this type of hearing loss. As for example, the applications of Otoacoustic Emissions cited by Parrado Apud Gatto and Tochetto (2007) among others are "for the objective evaluation of sensorineural loss of cochlear versus retrocochlear origin, audiological monitoring of patients exposed to aggressive agents such as ototoxic drugs and noise "In hearing loss in frequencies where the bone pathway is not evaluated, there was a failure (referral) of 21.05% in both ears and in the population with mixed hearing loss, with a percentage of 5.26% right ear failures were found.

Table 2 traces the auditory profile in the female population evaluated, where 26.31% of the respondents presented PAIRO prevalence, referring to the research by Lopes (2009), which affirms that occupational noise has reached a large part of the working population worldwide , with Noise-Induced Hearing Loss (PAIR), the second most frequent hearing-aid disease. In the results of the present study with the female population of artisanal fishermen in Manacapuru (AM), 52.63% also had sensorineural hearing loss, 42.10% presented hearing loss in the frequencies in which the bone pathway is not evaluated, and 10.52% hearing loss. Thus, it is noticed that almost all the women participating in the study present some type of hearing loss, which causes harm to all areas of life (social, family, love, including the employment area).

CONCLUSION

The PAIRO prevalence auditory profile was expected for this study, since workers are vulnerable to occupational noise (as well as men), between 2 and 20 years of occupational exposure. However, after performing this study, it can be observed that although the fishermen were exposed to occupational noise for so many years, their hearing profile was 52.63% for sensorineural hearing loss (PAN) and 42.10% for hearing loss (PA) at frequencies where the bone pathway is not evaluated.

Thus, due to this conclusive dichotomy, further studies on this population are suggested to ascertain possible evolution of diagnosed sensorineural hearing loss, for PAIRO audiometric curves typical of PAIRO.

REFERENCES

1. BRASIL. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Ações Programáticas Estratégicas. Perda auditiva induzida por ruído (PAIR). Brasília DF: Editora do Ministério da Saúde, 2006.
2. BRASIL- Ministério do Trabalho e Emprego Portaria 3214 de jul.1978 Normas regulamentadoras de segurança e saúde no trabalho (NR-15): Atividades e operações insalubres. Brasilia, 1978 Disponível em: <http//www.mte.gov.br/temas/segsau/legislação/normas/conteúdo/nr15> acesso em 28/03/2017.
3. BRASIL, J.B.S; Mulheres Pescadoras da Várzea do Município de Parintins – AM: A Pesca do Camarão nas Comunidades da Brasília e Catispera. Manaus, 2015.
4. CAVALCANTI, D.R.M.; Mulheres nas Águas; Um Estudo Sobre Relações de Gênero na Pesca. Joao Pessoa, 2010.
5. Conselho Regional de Fonoaudiologia. Portaria n° 19, de 09 de abril de 1998-09-10. Disponível em: http://www.fonosp.org.br/legislacao/ministerio-do-trabalho/portaria-n%C2%BA-19-de-09-de-abril-de-1998-09-10-2/ acesso em 28/03/2017
6. FIGUEIREDO, M.M.A.; PROST, C.; O Trabalho da Mulher na Cadeia Produtiva da Pesca Artesanal. Revista Feminismo. Vol.2, N.1 Jan./Abr. 2014.
7. KOOPMANN JR,C.F. Problemas otolaringológicos no idoso. Med Clin North Am.

1991;6:1411-27
8. LOPES,A.C.; OTUBO,K.A.; BASSO, T.C.; MARINELLI, E.J.I.; LAURIS, J.R.P.; Perda Auditiva Ocupacional: Audiometria Tonal X Audiometria de Altas Frequencias, São Paulo, v.13, n.3, p. 293-299, 2009.
9. MARTINS, M. L. S.; ALVIM, R.G. Perspectivas do trabalho feminino na pesca artesanal: particularidades da comunidade Ilha do Beto, Sergipe, Brasil; Belém, v. 11, n. 2, p. 379-390, maio-ago. 2016.
10. PARRADO, M.E.S. Emissões Otoacústicas em recém-nascidos. IN: GATTO, C.I.; TOCHETTO, T.M. Deficiência Auditiva Infantil: implicações e soluções. Rev. CEFAC vol.9 no.1 São Paulo Jan./Mar. 2007
11. PEARSON, J.D., MORRELL,C. H.; SALANT,S.A.; BRANT, L. J.; METTER, J; KLEIN,L.L. ; FORZARD,J.L. Gender differences in a longitudinal study of age-associated hearing loss. Rev. Acoustical Society of America, v. 97, n. 2, February, 1995.
12. RAMOS, M.O.;ULBANERE R.C.; JESUS,B.S. Mulheres no mercado de trabalho. Disponível em: http://www.unaerp.br/revista-cientifica-integrada/edicoes-anteriores/edicao-n-4-2014-1-1/1498-432-1506-1-sm/file> acesso em 12/02/2017
13. Raul, H.; Ralph, F.N. Presbycusis. In: Paparella MM, Shumrick DA, Gluckman JL, Meyerhoff WL, editors. Tratado de Otorrinolaringologia. 3a ed. Buenos Aires: Panamericana;1994. p. 1906-17
14. Sistema de Conselhos de Fonoaudiologia. Guia de orientações na avaliação audiológica básica. Abril, 2017.
15. SCHUKNECHT H.F.; GACEK M.R. Cochlear pathology in presbycusis. Ann Otol Rhinol Laryngol. 1993:102:1-16