

HEARING AIDS USERS' SATISFACTION ATTENDING A PRIVATE SERVICE

Satisfação de usuários de aparelho de amplificação sonora individual atendidos em um centro auditivo

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ABSTRACT

Purpose: to ascertain the degree of satisfaction of individual hearing aid users through the questionnaire Satisfaction with Amplification in Daily Life. **Methods:** an observational, descriptive and analytical cross-sectional study with the participation of individuals aged between 52 and 96 years old with bilateral sensorineural hearing loss from mild to severe, hearing aid users. All participants answered a questionnaire at the beginning of the process of adaptation of the hearing aids and after three months of use of it. **Results:** there were significant differences in questionnaire scores comparing the results of users with unilateral and bilateral adaptation both for the first time and for the second assessment. Showed a statistically significant difference between the two moments for the subscale negative factors and the average overall score, greater satisfaction was observed on the second time. There are statistically significant positive correlations between the results of subscale rates, and has global average and among negative factors and overall average. Among the negative factors and personal image correlation was negative. **Conclusion:** the survey results showed that users evaluated hearing aid were satisfied with amplification after three months of effective use. There was no difference in satisfaction between unilateral and bilateral adaptation. There was no statistically significant correlation between the overall average and the results of subscale costs and services. Acclimatization has helped meet the negative factor subscale and the overall survey average.

KEYWORDS: Patient Satisfaction; Questionnaire; Hearing Aids; Hearing Loss

■ INTRODUCTION

The hearing is set as a key factor for the overall development of the individual. It is the way that the human being enters in the world of sound, allowing the acquisition and development of language occur ¹.

Thus, hearing loss entails several negative consequences for the life of an individual, decisively interfering with their quality of life, because it produces social and family isolation. The negative effects of hearing loss can be minimized with the use of individual hearing aid (HA) since the process

of selection and adaptation of the same is carried out in appropriate order ².

The hearing aid is an electronic device whose main function sound amplification gives the individual the use of their residual hearing. For this objective to be achieved is crucial that the electroacoustic settings are in accordance with the individual needs³. This is a challenge because the professional will have to translate those needs that are often expressed through the patient's reports and findings of audiological evaluations and turn into electroacoustic adjustments in hearing aids. With the development of digital technology devices, the speech therapist has at its disposal a number of features that allows programs as the audiological evaluation findings and patient reports of more precise way ⁴.

However, it needs to know the patient's perception regarding their limitations in communication. A

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well-designed self assessment questionnaire may identify the actual hearing difficulties, and will serve as a beacon along the time⁵. Therefore it became necessary to subjective methods of self-assessment which also initially measure the psychosocial effects of hearing loss. In recent years several self-assessment questionnaires are available to the professional to draw a profile of the main needs of the hearing aid user⁶. The use of questionnaires is a simple, fast and effective procedure that promotes the evaluation of the individual throughout the process of adapting a HA⁷.

In Brazil there are several self-assessment questionnaires, among them are: APHAB (Abbreviated Profile of Hearing Aid Benefit), the HHIE (Hearing Inventory for the Elderly) and HHIA (Hearing Handicap Inventory for the Adults), which were translated and adapted to the Brazilian reality in order to verify the benefit as well, reducing participation restrictions resulting from the use of HA⁸.

The use of self-assessment questionnaires are vital and complement the other assessment methods, providing the decline in dissatisfaction of the hearing aid user. Therefore, evaluate and document the satisfaction and the benefit that the use of sound amplification system offers the user becomes indispensable⁹. Among the various questionnaires to assess the satisfaction of the hearing aid user is the Satisfaction with Amplification in Daily Life (SADL). This material is intended to measure the degree of satisfaction in daily life with the use of hearing aids and presents itself as an excellent tool quality¹⁰. Moreover, it is easy to apply, very useful in clinical use because it allows the independent and objective measurement of constituents of satisfaction¹¹.

Knowledge of satisfaction with the use of hearing aids should be a priority in attendance, as will offer guidance to the audiologist ensuring the possibility of success in the process of adaptation¹². Study at a public hearing health in Brazil showed that patients fitted with hearing aids were satisfied with the use of amplification. The authors observed that the satisfaction ratings were generally higher than those observed by the authors of the questionnaire in the previous survey. They also reported that satisfaction was not related to the variables gender, age, degree of hearing loss and profile electroacoustic¹¹.

In Brazilian literature there are several studies on the satisfaction of hearing aid users who are accompanied in public services, but little is read on patients treated in private services, such as the auditives centers^{5,11,12}.

US researchers conducted a study comparing hearing aid users attending a private service and users of public services. The survey results revealed that the public service of the patients had more

problems related to activities of daily living, though these differences between the groups disappear after using the amplification. Furthermore, expectations regarding the use of hearing aids were higher in patients coming from public service. Therefore, they concluded that it is risky to generalize results of surveys of hearing aid users of public health in relation to private service patients, and vice versa¹³.

Based on the above considerations, the present study aimed to determine the degree of satisfaction of hearing aid users through the questionnaire *Satisfaction with Amplification in Daily Life* – SADL and evaluate the effect of acclimatization in user satisfaction.

■ METHODS

This study was approved by the Ethics Committee of the Santa Casa de Misericórdia de Belo Horizonte (SCMBH) under the research protocol Number: 300,611. The hearing aid users who have agreed to participate in the study signed a free and informed consent form and only then data collection began.

This is an observational, descriptive, analytical cross-sectional study conducted with patients of a particular hearing center located in Muriaé in the state of Minas Gerais. The survey sample consisted of individuals aged between 52 and 96 years old with bilateral sensorineural¹⁴ hearing loss from mild to severe¹⁵, new amplification users fitted with hearing aids of digital technology. All participants had graphical code domain.

In order to assess the satisfaction of these patients with the use of amplification, we used the questionnaire Satisfaction with Amplification in Daily Life - SADL, developed at the University of Memphis in the United States by Cox and Alexander, in 1999¹⁶, which was translated and validated for Brazilian Portuguese 2011⁷.

The SADL questionnaire consists of 15 questions divided into four subscales: Positive Effects (six items associated with acoustic and psychological benefit); Services and Costs (three items associated with professional competence, product price and number of repairs); Negative factors (three related items with the amplification of background noise, the presence of noise and the use of telephone) and Personal Image (three items related to esthetical factors and stigma of use of hearing aid)¹⁷.

The subscales are composed of the following questions: 1-positive effects, questions 1, 3, 5, 6, 9 and 10; 2-negative factors, questions 2, 7 and 11; 3-personal image, questions 4, 8, 13 and 4-services and costs, questions 12, 14, and 15. For each question, the patient was asked to respond according to his opinion in relation to his hearing

aid, a seven-point scale as follows: A-No; B-low; Shortly C-; D- East; And sometimes; Often F- and G- Always⁷.

The medium used to record the results of the SADL considering the 15 items were: For the issues 1, 3, 5, 6, 8, 9, 10, 11, 12, 14 and 15 the score coincides with the score scale. That is, if the patient answered the letter A, received a score of one, if answered the letter G, received seven points. As for the items 2, 4, 7 and 13, there is an inverse relationship between scores and scale, ie, the letter A receives and expresses seven points greater satisfaction, while the letter G, a point receives and expresses dissatisfaction. As larger numerical results obtained by averaging each subscale, the greater the degree of satisfaction⁷.

In order to evaluate the effect of acclimatization in meeting the use of sound amplification, the questionnaire was administered at two different times, namely: 1st time: the questionnaire was applied at the end of the selection and adaptation of the hearing process and 2nd moment: the questionnaire after 12 weeks (three months) effective use of hearing aids. The average daily use time was 7 hours. The establishment of this time was obtained through analysis of the data stored in the memory of hearing aids of research participants.

In this research were conducted the following analysis with data obtained in the collection: analysis of the results of the questionnaire on the 1st time of research, analyzing the results of the questionnaire on the 2nd moment and, finally, a comparison of results obtained in two stages.

The participant was asked to read the questionnaire and answer it without any interference in the responses by the researcher.

The results were submitted to descriptive and inferential statistical analysis, nonparametric tests being used. The significance level was 5% (0.05). All confidence intervals throughout the work were built with 95% statistical confidence. To determine

how good a correlation, we used the grading scale below¹⁸.

■ RESULTS

This study consisted of 14 individuals, 10 (71.4%) were female and four (28.6%) were male. The age range was 52-96 years old with a mean age of 75.4 years old (7.3).

Of all study three (21.42%) had mild hearing loss, seven (50%) moderate, two (14.29%) of moderately severe degree and two (14.29%) of severe degree.

The next fitted with hearing aids, eight subjects (57.1%) were unilateral and six use bilateral use (42.9%). The unilateral amplification of individual users claimed that for financial reasons it was not possible to bilateral adaptation, but were aware of the importance and benefits of the bilateral use.

As for the distribution of the type of hearing aid, only one individual (7.1%) was adapted with intra-aural type the microcanal, and 13 individuals (92.9%) were fitted with BTE, two with conventional ear mold, two with thin tube (RITA) and nine individuals with the receiver in the ear (RITE).

Initially comparisons were made between performance on SADL questionnaire considering the individuals who were fitted with one or two hearing aids for both time points. The results are shown in Table 1.

The statistical test of Mann Whitney showed that there were no differences between the results for any of the subscales, ie the score achieved on each subscale was similar between subjects who were fitted with one or two individual hearing aids. Since there was no difference in satisfaction between users of one or two hearing aids, it was decided to unify the sample.

In Table 2, we observed the scores obtained in the different subscales of the SADL questionnaire, considering the two time points.

Comparing the results of the questionnaire, the Wilcoxon test revealed a statistically significant difference between the two moments for the negative factor subscale ($p = 0.012$) and the mean global score ($p = 0.010$).

Finally, we chose to make a correlation analysis between the subscales. Tables 3 and 4 can be seen the results considering the 1st time to review and assessment point 2, respectively.

The Spearman correlation analysis showed that there are statistically significant positive correlations in the 1st moment of application of the SADL questionnaire between subscale costs and services

and the overall survey average ($p = 0.007$) and between the subscale of negative factors and the average overall ($p = 0.013$). In both cases the correlation found was good. Among the negative factors and personal image was no statistically significant correlation ($p = 0.037$), but regular and negative ($r = -56.1\%$).

The 2nd time statistically significant positive correlations were found between the subscales positive and global average ($p = 0.020$) and costs and services with global average ($p = 0.022$). In both cases a positive correlation was seen and good.

Table 1 – Comparison of performance of questionnaire *Satisfaction with Amplification in Daily Life* considering the adaptation of the amplification sound on individual hearing aid to each moment of the evaluation

Adaptation			Mean	Median	Standard Deviation	Q1	Q3	N	CI	P-value
Positive Effects	1st time	Bilateral	6,75	6,83	0,33	6,67	7,00	6	0,26	0,353
		Unilateral	6,65	6,75	0,29	6,63	6,83	8	0,20	
	2nd time	Bilateral	6,56	6,92	0,79	6,58	7,00	6	0,63	
		Unilateral	6,79	6,92	0,34	6,79	7,00	8	0,24	
Costs and Services	1st time	Bilateral	5,83	6,00	0,78	5,50	6,00	6	0,63	0,946
		Unilateral	5,83	6,00	0,59	5,50	6,08	8	0,41	
	2nd time	Bilateral	6,17	6,33	0,72	5,83	6,58	6	0,58	
		Unilateral	6,00	6,17	0,67	5,75	6,42	8	0,46	
Negative Factors	1st time	Bilateral	5,61	5,67	0,39	5,42	5,92	6	0,31	0,116
		Unilateral	6,17	6,50	0,91	5,67	6,75	8	0,63	
	2nd time	Bilateral	6,50	6,67	0,62	6,42	6,92	6	0,50	
		Unilateral	6,58	6,67	0,35	6,33	6,75	8	0,24	
Personal image	1 ^o st time	Bilateral	7,00	7,00	0,00	7,00	7,00	6	- x -	0,105
		Unilateral	6,83	7,00	0,25	6,67	7,00	8	0,17	
	2nd time	Bilateral	7,00	7,00	0,00	7,00	7,00	6	- x -	
		Unilateral	6,75	7,00	0,50	6,83	7,00	8	0,34	
Global	1st time	Bilateral	6,30	6,23	0,24	6,10	6,45	6	0,19	0,517
		Unilateral	6,37	6,35	0,25	6,16	6,47	8	0,17	
	2nd time	Bilateral	6,56	6,50	0,22	6,39	6,74	6	0,17	
		Unilateral	6,53	6,60	0,25	6,36	6,67	8	0,18	

Legend: Q1: 1^o quartile, Q3: 3^o quartile; N = size of sample CI: confidence interval
Statistical test: Mann-Whitney . Significance level 0,05*.

Table 2 – Comparison of scores on the subscales of questionnaire *Satisfaction with Amplification in Daily Life*, according to variable in the moment of application

SADL		Mean	Median	Standard Deviation	Q1	Q3	N	CI	P-value
Positive Effects	1st time	6,69	6,75	0,30	6,67	6,83	14	0,16	0,472
	2nd time	6,69	6,92	0,56	6,71	7,00	14	0,29	
Costs and Services	1st time	5,83	6,00	0,65	5,42	6,00	14	0,34	0,311
	2nd time	6,07	6,33	0,67	5,75	6,58	14	0,35	
Negative Factors	1st time	5,93	5,83	0,76	5,67	6,58	14	0,40	0,012*
	2nd time	6,55	6,67	0,46	6,33	6,92	14	0,24	
Personal image	1st time	6,90	7,00	0,20	7,00	7,00	14	0,11	0,593
	2nd time	6,86	7,00	0,39	7,00	7,00	14	0,20	
Global	1st time	6,34	6,31	0,24	6,14	6,49	14	0,13	0,010*
	2nd time	6,54	6,58	0,23	6,39	6,67	14	0,12	

Legend: SADL: *Satisfaction with Amplification in Daily Life*, Q1°quartile, Q3°quartile; N= size of sample, CI confidence interval
Statistical test: Wilcoxon Test. Significance level 0,05*.

Table 3 – Correlation of scores of questionnaire *Satisfaction with Amplification in Daily Life* obtained in the subscales, considering the first time of evaluation

1st Time		Positive Effects	Costs and Services	Negative Factors	Personal Image
Costs and Services	Corr (r)	16,0%			
	P-value	0,585			
Negative Factors	Corr (r)	-24,7%	3,6%		
	P-value	0,394	0,903		
Personal Image	Corr (r)	20,3%	1,1%	-56,1%	
	P-value	0,486	0,970	0,037*	
Global	Corr (r)	13,9%	68,2%	64,6%	-35,7%
	P-value	0,634	0,007*	0,013*	0,210

Legend: *Satisfaction with Amplification in Daily Life*
P-value, Corr- correlation of Spearman. Significance level 0,05*

Table 4 – Correlation of scores of questionnaire *Satisfaction with Amplification in Daily Life* obtained in the subscales considering the second time of evaluation

2nd Time		Positive Effects	Costs and Services	Negative Factors	Personal Image
Costs and Services	Corr (r)	10,6%			
	P-value	0,718			
Negative Factors	Corr (r)	-5,1%	-7,9%		
	P-value	0,861	0,787		
Personal Image	Corr (r)	-2,7%	-10,5%	-30,6%	
	P-value	0,927	0,721	0,288	
Global	Corr (r)	61,1%	60,4%	15,7%	10,9%
	P-value	0,020*	0,022*	0,592	0,712

P-value, Corr- correlation of Spearman. Significance level 0,05*

■ DISCUSSION

Hearing loss causes many impacts on an individual's life. Besides not hear well, there are several psychosocial changes for this and their families, among which are: inability to understand the conversation, removal of the situations involving communication. In the case of the elderly, these are taxed by the family as distracted, confused, disoriented, not employee, angry, old and unjustly senile¹⁹.

Thus, it is believed that the use of amplification appears as a means for minimizing the devastating effects of hearing loss. The whole process of adapting a hearing aid should not be based only objective reviews and tests. One should value the judgment of the patient, their acceptance, the benefits provided and the satisfaction with them²⁰.

Not enough to use a hearing aid, it is necessary that the individual is satisfied with the results of all the features offered by it, such as improved speech recognition in quiet and in noise, auditory comfort, physical aspects, among others.

It emphasizes the importance of using questionnaires as the SADL, because it presents itself as a tool that evaluates the satisfaction of hearing aid users, as well as their front performance in a challenging environment, provides information about the disadvantages of hearing impairment, predicts successful adaptation. Moreover, it provides routing data for the entire process of adaptation²¹.

Although all participants of this research reveal bilateral hearing loss, only six (42.9%) subjects of the study population were fitted with two hearing aids. In Table 1 it can be seen that there was no statistically significant difference in what concerns the satisfaction obtained with the use of amplification among individuals who used hearing aids unilaterally or bilaterally in two evaluated periods, confirming survey conducted earlier in which he obtained 98% satisfaction with the use of hearing aids, regardless of whether the use was bilateral or unilateral²². Although studies indicate that the greater the hearing loss, the more benefits the individual will have with the use of bilateral amplification and better the individual's ability to localize sound and have a better satisfaction with the use of hearing aids, professionals emphasize that one should take into consideration the consent of the individual in the use of adaptation bilateral²³.

The bilateral hearing aid users in this study demonstrated greater satisfaction for the following subscales: personal image (7.00 points) and positive effects (6.75 points) for the 1st time evaluation and personal image (7.0 points) and positive effects (6.56 points) in the second time. While for lower satisfaction the following results were found:

5.61 to negative factors; 5.83 to costs and services at first and 6.17 to costs and services in the second time.

Since the unilateral hearing aid users in this study showed greater satisfaction for the following subscales: Personal image (6.83 points) and positive effects (6.65 points) at first; and positive effects (6.79 points) and personal image (6.75 points) in the second time. The lowest satisfaction was found for the following subscales: 5.83 to costs and services at first and 6.00 for costs and services in the second time.

Studies showed that the binaural adaptation brings many benefits to individuals, such as: better sound localization, binaural summation, better speech understanding in noise, eliminating the shadow effect and prevents the deprivation sensorial²⁴. Some individuals involved in this study, even being counseled about the importance of binaural hearing, opted for monaural use, explaining that the financial situation was not favorable for the purchase of two hearing aids. In this study there was no statistically significant difference between the scores for individuals with binaural and monaural fitting, agreeing with the findings of previous surveys, in which no difference in satisfaction of independent hearing aid users adaptation be unilateral or bilateral²⁵, and even though the loss was bilateral, but with adaptation unilateral²⁶. In addition, it is noteworthy that for both groups observed satisfaction was high.

In Table 2 the results are described in each subscale and the average global satisfaction for both the 1st time 2nd time as for the evaluation. Initially it was observed that, regardless of time, survey participants were satisfied with the use of amplification considering each subscale and the global average. Whereas the maximum average value that could be obtained was 7.0, the average value obtained in the first time was not less than 5.83 and the 2nd time was not less than 6.07.

Separately analyzing the results of the 1st moment, it was found that the personal image subscale was obtained the greatest mean score (6.90), followed by positive effects subscale (6.69). As for the subscales rates, and has negative factors had the lowest average scores, with values of 5.83 and 5.93 respectively. Considering the 2nd time, it observed similar behavior for each subscale, and the best results were obtained on the subscales Personal Image (6.86) and positive effects (6.69) and the lowest scores for costs and services (6, 07) and negatives (6.55).

In both time points there were slightly different results nationwide previous search with the same material. A 2011 study found greater satisfaction for

positive effects averaging 6.50 and services and costs with an average of 6.26 and less satisfaction for the subscale negative factors averaging 4.73⁷. The literature²⁷ reports that the use of hearing aids increases the satisfaction related to the subscale items positive factors, however, this study found no improvement with continued use of amplification, for the two times the score obtained in this regard was 6.69 points .

International study with SADL in 2002, emphasized that the results obtained in the subscale Positive Effects have strong influence on the construction of satisfaction. Furthermore, they reported that an increase in this range is an improvement in communication and sound quality even at the beginning of adaptation²⁸. The authors of this questionnaire reported that a high level of satisfaction with this subscale, indicates that users feel satisfied with the acoustic issues and competence of the audiologist responsible for adapting professional as well as the quality of the HA¹⁶.

As for the subscale costs and services with respect to professional competence issues, price and quality of the hearing aid, there was a score change from the first moment (5.83) for the second time (6.07), but no statistically significant difference.

As for the subscale negative factors, which are discussed items related to environmental noise, feedback and telephone use, we observed a statistically significant difference ($p = 0.012$) between the two time points, and at first was obtained as a result of 5.93 points and 6.55 points in the second time. It was found that at first the individual was less than satisfied after the acclimatization period. The aspects covered in this subscale are usually loaded with expectations at first time of amplification use. In the second time after several hours of experience and also by the positive effect caused by acclimatization period, especially in aspects related to communication noisy environment, the individual was able to realize more clearly the benefits obtained with the use of amplification. The authors of this survey reported that, as studies mentioned the dissatisfaction listening in challenging environments, talking on the phone and presence of noise, this area was used by the author as a parameter to the adaptation problems¹⁶. It was reported by the national study authors 2010 that the items addressed in the subscale negative factors take longer to be incorporated by the user and thus improve their satisfaction¹¹.

It is noteworthy that the acclimatization process is characterized as a redevelopment process that results in improved quality of speech recognition, however this process occurs in a slow way²⁹.

For the personal image subscale, which is related to aesthetic factors and the stigma associated with the use of hearing aids, yielded the highest values both at first (6.90) and the second (6.86) Other researchers have found that this subscale was kept in the questionnaire due to overvaluation that some individuals make with respect to the appearance of the appliances as well as the impression that they cause to others, although not all care about the aspects mentioned above³⁰. A study conducted in Brazil with SADL confirmed by global score and its relationship with the subscales that survey participants found themselves satisfied with the use of hearing aids, and on the subscale personal image, it had the highest number of people demonstrating much satisfaction³¹.

In contrast, the previous two surveys showed different results. A study conducted in 2007 in the state of Tocantins revealed a high satisfaction rate in the various fields of SADL, except for the subscale personal image in which we observed a higher rate of insatisfied individuals³². Another study conducted in southern Brazil revealed that although individuals were satisfied with the use of hearing aids the highest percentage of dissatisfaction also occurred with personal image domain³³. An important aspect to be considered refers to the fact that in this study 85.71% of the sample was fitted with hearing aids the microcanal type or RITE and RITA. Already in the two studies mentioned above most of the users were fitted with hearing aid BTE type.

It is assumed that the acclimatization has great influence in the process of satisfaction, contributing to improve functional capacity, physical, emotional, vitality, mental health and social aspects, ensuring quality of life to HA³⁴ user. In this study there was clearly the influence of acclimatization in satisfaction. Analyzing global average between the two time points, there was a statistically significant difference ($p = 0.010$) between the results. At first obtained the mean score was 6.34 and 6.54 in the second stage.

The results presented in Table 2 indicate that the acclimatization positively influences user satisfaction. Hence the importance of patient follow-up and given guidelines. He should be aware that the benefits obtained with the use of amplification are not achieved immediately and that the acclimatization period assists in satisfaction.

Table 3 one sees the correlation analyzes with the results obtained in the first moment. Through the Spearman correlation test it was found that there were positive correlations statistically significant between the overall average and the results of the SADL subscale and service costs ($p = 0.007$) and with the first subscale negative factors ($p = 0.013$).

These results show that the higher the satisfaction on the items involved in the subscales costs, services and negative factors, the greater the overall satisfaction, showing that these two subscales had greater strength in the final satisfaction of the subject.

The subscale costs and services that represent three items associated with: professional competence, product price, and number of repairs, showed a high degree of satisfaction, thus confirming the findings of the authors of questionnaire 20. Research in Brazilian utilities also stress a high degree of satisfaction for the subscale costs and services^{31,35}. However, the question whether this high level of satisfaction is especially true because of the individuals receiving the individual hearing aids through the Unified Health System³⁵. Based on the data observed in this study it was found that individuals were satisfied, even getting their hearing aids in a private service.

It is noteworthy that the satisfaction subscale score related to costs and benefits although it was the lowest among all subscales analyzed in both time points, was a high score when compared to other studies^{31,33}.

The positive and good correlation (64.6%) found among the global average of SADL and subscale scores of negative factors is due, according to Cox and Alexander, the improvement in hearing aid technology, and the modifications that the signal processing passed, ceasing to be a straight line passing to a nonlinear system, improving performance of the subject in noisy environments, thus providing better sound quality and, therefore, better satisfaction²¹.

Table 4 evaluated the correlations between the results obtained in the questionnaire after three months of use amplification. Statistically significant correlations were positive and considered good (between 60 and 80%). These correlations were observed between the overall average of the questionnaire and the subscale positive factors ($p = 0.020$) and again between the first and the subscale costs and services (0,022). That is, the higher the satisfaction with the items related to subscales positive effects and costs and services, the greater

the overall satisfaction of the subject with their hearing aid after the acclimatization period.

This study verified the importance of self-assessment measures to measure the satisfaction of the subject with the use of sound amplification system. Also showed the importance of the individual monitoring, because it found that the aspects related to the subscale negative factors the effective use of amplification during the acclimatization period further increased the satisfaction. It is worth mentioning the importance of regular monitoring of the hearing aid user, even after it has been adapted and also the counseling sessions to work issues to the expectations of patients and families, as well as the difficulties presented in challenging situations³⁶. In the national literature can be found studies^{17,37} that link high level of satisfaction in patients who received their hearing aids through the dispensation of the Unified Health System. This study also showed high satisfaction in individuals who acquired their devices in a private service.

This study used a small number of individuals participating, being justified due to the established inclusion criteria. In the auditory center in which the survey was conducted, the number of new adjustments has been reduced, because during the collection period there were more indications of hearing aids for older users than for new, this being one of the study inclusion criteria.

■ CONCLUSION

From the analysis and discussion of the results, it became possible to establish the following conclusions: the results of the SADL questionnaire showed that the hearing aid users attending a private service were satisfied, both for the different evaluated subscales as in overall satisfaction. The acclimatization period resulted in an increase in satisfaction for the subscale negative factors and the overall survey average. There was no statistically significant difference between the hearing aid user satisfaction with bilateral and unilateral adaptation. There was a statistically significant positive correlation between the total score of the questionnaire and the results of subscale costs and services.

RESUMO

Objetivo: verificar o grau de satisfação de usuários de aparelho de amplificação sonora individual por meio do questionário *Satisfaction with Amplification in Daily Life*. **Métodos:** estudo observacional, descritivo e analítico de delineamento transversal do qual participaram indivíduos com idade entre 52 e 96 anos portadores de perda auditiva neurossensorial bilateral de grau leve a severo, usuários de aparelho auditivo. Todos os participantes responderam o questionário no início do processo de adaptação do aparelho de amplificação sonora e após três meses de uso do mesmo. **Resultados:** não houve diferença significativa nos escores do questionário comparando os resultados dos usuários com adaptação unilateral e bilateral tanto para o primeiro momento quanto para o segundo momento de avaliação. Evidenciou-se diferença estatisticamente significativa entre os dois momentos para a subescala fatores negativos e para a média da pontuação global, sendo observada maior satisfação no segundo momento. Existem correlações positivas estatisticamente significantes entre os resultados da subescala custos e serviços e média global e entre fatores negativos e média global. Já entre os fatores negativos e a imagem pessoal a correlação observada foi negativa. **Conclusão:** os resultados da pesquisa evidenciaram que os usuários de aparelho auditivo avaliados mostraram-se satisfeitos com a amplificação após três meses de utilização efetiva. Não houve diferença de satisfação entre adaptação unilateral e bilateral. Existiu correlação estatisticamente significativa entre a média global e os resultados da subescala custos e serviços. A aclimatização contribuiu para a satisfação na subescala fatores negativos e para a média global do questionário.

DESCRITORES: Satisfação do Paciente; Questionário; Auxiliares de Audição; Perda Auditiva

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