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Cultural adaptation of the Expected Consequences of the Hearing Aid Ownership questionnaire for Brazilian Portuguese

Adaptação cultural do questionário *Expected Consequences of Hearing aid Ownership* para o português brasileiro

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ABSTRACT

Purpose: To translate and culturally adapt the Expected Consequences of Hearing aid Ownership (ECHO) for application in the Brazilian population. **Methods**: The Expected Consequences of the Hearing aid Ownership questionnaire consists of 15 questions and investigates the expectation of adults with hearing loss regarding the use of an Individual hearing aid. The translation was carried out by three English translating teachers who had no previous contact with the instrument. A review group made up of a professional in speech therapy and another in psychology and social work gathered the best translation found for each question in a single questionnaire in Portuguese. To improve the quality of the translation, three other translators made a new version in English, and the review group analyzed it by comparing them with the original. For pre-testing, the questionnaire was offered by two evaluators for 30 patients diagnosed with hearing loss. **Results**: A translation into Portuguese was made: "Questionário de Expectativa com uso de Auxiliares Auditivos." During the translation process, there was little difference between the versions, mostly referring to a literal translation. For adaptation, the three translations were analyzed and by consensus the best expressions and words were chosen for all questions, adapting the text to the knowledge and understanding of the Brazilian population. **Conclusion**: The Expected Consequences of Hearing aid Ownership questionnaire has been translated and adapted to the Brazilian culture. This questionnaire can be used as an important tool for speech therapists in understanding the patient's expectations and can better outlinethe rehabilitation process.

Keywords: Hearing loss; Surveys and questionnaires; Hearing; Patient preference; Hearing aids

RESUMO

Objetivo: traduzir e adaptar culturalmente o questionário *Expected Consequences of Hearing aid Ownership* para aplicação na população brasileira. **Métodos:** o *Expected Consequences of Hearing aid Ownership* é constituído por 15 questões e investiga a expectativa de adultos com perda auditiva quanto ao uso de aparelho de amplificação sonora individual. A tradução foi realizada por três professores tradutores-intérpretes de inglês, que não tiveram contato prévio com o instrumento. Um grupo revisor constituído por um profissional da Fonoaudiologia, um da Psicologia e do Serviço Social, reuniu a melhor tradução encontrada para cada questão em um único questionário em português. Para melhorar a qualidade da tradução, outros três tradutores realizaram nova versão para o inglês e o grupo revisor analisou, comparando-as com o original. Para pré-testagem, o questionário foi aplicado por dois avaliadores em 30 pacientes com diagnóstico de deficiência auditiva. **Resultados:** foi realizada a tradução para o português: "Questionário de Expectativa com Uso de Auxiliares Auditivos". Durante o processo de tradução, houve pequenas diferenças entre as versões, sendo, em sua maioria, referentes à tradução literal. Para a adaptação, as três traduções foram analisadas e, por consenso, foram escolhidas as melhores expressões e palavras em todas as questões, adaptando o texto ao conhecimento e compreensão da população brasileira. **Conclusão:** o questionário *Expected Consequences of Hearing aid Ownership* encontra-se traduzido e adaptado para a cultura brasileira e pode ser utilizado como importante ferramenta para fonoaudiólogos no conhecimento das expectativas do paciente e melhor delineamento do processo de reabilitação.

Palavras-chave: Perda auditiva; Inquéritos e questionários; Audição; Preferência do paciente; Auxiliares de audição

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INTRODUCTION

Hearing loss can cause many negative effects on the individual, especially in the elderly with post-lingual hearing loss. Among sensory deprivations, it can be considered one of the most disabling since it causes a decrease in social contact, generating emotional compromises, often devastating[1]. Such consequences can be minimized with the use of the individual sound amplification device (hearing aid), especially in mild or moderate losses, allowing the rescue of the perception of speech and environmental sounds, promoting an improvement in communication[2].

In 2004, in order to expand care for people with hearing loss, the National Policy for Hearing Health Care was instituted through Ordinances GM / MS nº 2073 and SAS / MS nº 587[3], which from since then has provided for the implementation of intervention measures in the natural history of hearing loss through comprehensive health promotion actions, intervention (involving the granting of hearing aids) and hearing rehabilitation. In 2011, the National Plan for the Rights of Persons with Disabilities - Plano Viver Sem Limites was decreed, which guarantees, among other rights, the promotion of access to assistive technologies and accessibility resources, complementing previous policies[4].

In the hearing aid adaptation process, many users have resistance and difficulty in adapting to this new situation due to several factors such as the acceptance of hearing loss, the stigma of the use of amplification, the difficulty in assimilating the guidelines and the expectation about the hearing aid. Thus, it is important to investigate the patient's perspective in relation to the amplification device to prevent possible treatment abandonments related to the acceptance and stigma of hearing loss and its therapy[5,6].

In Brazil, some self-assessment questionnaires, including the IOI-HA (International Outcome Inventory for Hearing Aids), SADL (Satisfaction with Amplification in Daily Life) and HHIA (Hearing Handicap Inventory for the Adults) have been translated and adapted to the reality of our country, investigating the restriction of participation, the degree of user satisfaction, the benefits obtained with the use of hearing aids and the reduction of hearing impairment with the use of amplification[7-9].

In order to have access to expectations with the use of hearing aids, Cox and Alexander, in 2000, designed the ECHO (Expected Consequences of Hearing aid Ownership), which was developed as a complementary instrument for the SADL questionnaire (Satisfaction with Amplification in Daily Life)[10].

The questionnaire contains 15 questions, divided into four subscales: Positive Effects (six items associated with acoustic and psychological benefits); Services and Costs (three items associated with professional competence, product price and number of repairs); Negative Factors (three items related to the amplification of environmental noise, presence of feedback and effective use of the telephone) and Personal Image (three items related to aesthetic factors and the stigma of the use of hearing aids) (Annex 1).

Since it is a short questionnaire and possibly easy to apply, the use of this instrument can guide the professional in relation to the selection of the physical and electroacoustic characteristics of the hearing aid. With knowledge of the patient's real expectations, the professional can outline the rehabilitation process in a more individual and humanized way.

To make this possible, the objective of the present work was to translate and culturally adapt the Expected Consequences of Hearing aid Ownership questionnaire (ECHO) for application in the Brazilian population.

METHODS

Ethical and casuistic aspects

The study was developed after approval by the Research Ethics Committee on Human Beings of the Bauru School of Dentistry under number 2,389,762 and patients' acquiescence to participate in the work and publication of the data by signing the Free and Informed Consent Form(FIC).

Procedure

The cultural adaptation of the instrument followed the steps indicated by Guillemin et al., in 1993[11], which included: translation from English to Brazilian Portuguese, linguistic adaptation and revision of grammatical and idiomatic equivalences. It was not necessary to perform the optional step, which aims to adjust the scores of the questions after the adaptations. Additionally, the inter-researcher and intra-researcher reproducibility assessment step was carried out.

Brazilian Portuguese translation, back-translation and proofreading

The questionnaire was distributed to three teachers, translators and interpreters of English, who had no previous contact with the instrument and did not know each other in order to prepare, individually and confidentially, the first version for Portuguese. The procedure was carried out in order to generate three independent ECHO translations.

To improve the quality of the final translation, back-translation to the original language was carried out. To this end, a copy of the ECHO was sent to three other translators, unaware of the original text, who made a new version for the English language. These new translators presented themselves in the same linguistic and cultural condition as the first translators, and they were not allowed to have contact with the original text, written in English, thus avoiding any influence on the translation of the words.

The revision stage consisted of choosing the best translation for the questions and modifying them by approximating more appropriate terms, chosen to allow comprehension by the Brazilian population. The multiprofessional review group consisted of a speech therapist, a psychologist and a social worker (Brazilian, knowledgeable with fluency in the English language), who analyzed all versions of the documents.

The back-translated versions were compared with the original in English and the best word options were chosen in order to avoid ambiguity. The resulting documents were analyzed and the differences found in the translations were reduced, based on the choice of the best expressions and words for all questions,

adapting the text to the Brazilian cultural knowledge through consensus.

Pre-testing

The cultural adaptation of the Brazilian Portuguese ECHO aimed to establish cultural equivalence between the English and Portuguese versions of the questionnaire. Cultural equivalence is established by verifying that there are no difficulties in understanding the questions elaborated, or the terms used by the researched population, when at least 80% of the individuals show that they do not have any type of difficulty in answering each question formulated[11]. If this number exceeded the established limit, the question would be individually submitted to a new translation and version process. For this, the questionnaire was applied by Interviewer 1, who performed an oral reading of each question in order to include individuals with visual impairment or illiteracy.

Thirty individuals participated in the research that met the following inclusion criteria: signing the informed consent form; adults; native speakers of Portuguese; diagnosis of post-lingual hearing loss; users of the research institution; without previous experience with hearing aids; good general health status; comprehension ability to answer the questionnaire.

Reproducibility

To assess the reproducibility of the material, the questionnaire was applied twice more with each research participant. To test inter-researcher reproducibility, it was applied by a second interviewer (Interviewer 2). Finally, the questionnaire was applied again by Interviewer 1 to assess intra-researcher reproducibility. The interval between each application was approximately 50 minutes.

Data analysis

The data obtained were tabulated in a Microsoft Excel spreadsheet. To obtain the results of the mean, median, minimum, maximum and standard deviation, a descriptive statistic was used. For each question, the responses obtained from all participants were analyzed in the first and second application. Regarding intra-researcher reproducibility, the Spearman's Coefficient test was used and the Wilcoxon test was performed to compare each ECHO inter-researcher application.

RESULTS

After completing the proposed steps, the questionnaire was translated and adapted to Brazilian Portuguese (Appendix 1) as the "Expectation Questionnaire with the Use of Hearing Aids".

During the revision stage, the divergent terms between the versions were discussed and, with the consent of the reviewers, we opted for those that most facilitated the understanding of laypeople.

For pre-testing, the final document was applied to 30 individuals, 16 (53%) men and 14 (47%) women, with an average age of 65 years, with a minimum age of 32 years and a maximum of 89 years. During the application, there was no hesitation or questioning by more than 20% of the participants for any question, therefore, it was not necessary to revise any term. It was observed that the questionnaire was applied quickly and was easily understood, facilitating its clinical use, especially in the elderly population which was the predominant age group in the sample in question.

The intra-researcher reproducibility was assessed using the Spearman's Coefficient test in which the significance of reproducibility between the applications of most of the questions was perceived, including the subscales Positive Effect, Negative Resources and Personal Image.

The comparison of the inter-researcher reproducibility was analyzed using the Wilcoxon test, which demonstrated that there was no significant difference between the results obtained by both evaluators for all questions in the questionnaire and also for the subscales.

It was found that there was no significant difference between the first and second application for the parameters of mean, median, minimum number, maximum number and standard deviation (Table 1).

The questions classified as additional items, referring to the time of experience with the hearing aid, daily use of the device and degree of hearing difficulty were evaluated with the Kappa Agreement and there was agreement between all questions, with values close to 1.

The average obtained between the two applications for each question varied between 3.55 and 6.87 points. The greatest expectation was found in question number 6 - "My hearing aid will be worth it," which obtained an average of 6.87 between the two applications. The question with the lowest average was number 4 - "People will notice my hearing loss more when I use a hearing aid," with an average of 3.55 between applications, as can be seen in Table 2.

Regarding the questionnaire subscales (Positive Effect, Services and Costs, Negative Resources and Personal Image), it was possible to notice that in the data of the mean, median, minimum number, maximum number and standard deviation there was no difference between the first and the second application, as shown in (Table 3).

DISCUSSION

The present study translated and adapted the ECHO questionnaire into Brazilian Portuguese, aiming to provide a tool to quantify and qualify the patient's expectations before the adaptation and use of the hearing aid. The relevance of adapting it culturally is justified by the need to use an internationally validated tool to assess the expectations of the patient in the process of adapting hearing aids.

Hearing impairment has a great impact on the individual's life and can bring social, psychological and professional consequences[12]. Sound amplification technology is able to minimize these negative effects[13]. However, individuality directly reflects expectations regarding the use of hearing aids, a very important factor to be noted so that the speech therapy approach, and the consequent adaptation are successful for each patient, because, after all, there is no protocol established in the literature for counseling[14].

Table 1. First and second application of each question in the questionnaire as to the mean, median, minimum number, maximum number and standard deviation

Question ECHO	Application	Average	Median	Minimum	Maximum	SD
1	1ª	6.67	7.00	5.00	7.00	0.60
	2ª	6.67	7.00	5.00	7.00	0.60
2	1ª	5.33	6.00	1.00	7.00	2.07
	2ª	5.23	6.00	1.00	7.00	2.03
3	1ª	6.37	7.00	1.00	7.00	1.45
	2ª	6,53	7.00	3.00	7.00	1.06
4	1ª	3.63	3.50	1.00	7.00	2.59
	2ª	3.47	2.50	1.00	7.00	2.38
5	1ª	6.07	7.00	1.00	7.00	1.97
	2ª	5.87	7.00	1.00	7.00	1.91
6	1ª	6.80	7.00	6.00	7.00	0.40
	2ª	6.93	7.00	6.00	7.00	0.25
7	1ª	4.00	5.00	1.00	7.00	2.44
	2ª	4.00	5.00	1.00	7.00	2.52
8	1ª	5.90	7.00	1.00	7.00	1.87
	2ª	5.67	7.00	1.00	7.00	1.96
9	1ª	6.77	7.00	2.00	7.00	0.92
	2ª	6.87	7.00	4.00	7.00	0.56
10	1ª	5.70	7.00	2.00	7.00	1.79
	2ª	5.73	7.00	2.00	7.00	1.63
11	1ª	4.10	6.00	0.00	7.00	3.23
	2ª	4.33	7.00	0.00	7.00	3.26
12	1ª	6.87	7.00	6.00	7.00	0.34
	2ª	6.80	7.00	5.00	7.00	0.48
13	1ª	6.33	7.00	1.00	7.00	1.72
	2ª	6.63	7.00	1.00	7.00	1.14
14	1ª	5.47	7.00	1.00	7.00	2.08
	2ª	5.17	6.00	1.00	7.00	2.24
15	1ª	6.00	7.00	1.00	7.00	1.61
	2ª	6.00	7.00	1.00	7.00	1.61

Subtitle: ECHO = Expected Consequences of Hearing aid Ownership; SD = Standard Deviation

Table 2. Average between the first and second application of each question in the questionnaire as to the mean, median, minimum number, maximum number and standard deviation.

Question ECHO	Average	Median	Minimum	Maximum	SD
1	6.67	7.00	5.00	7.00	0.60
2	5.28	6.00	1.00	7.00	2.05
3	6.45	7.00	2.00	7.00	1.25
4	3.55	3.00	1.00	7.00	2.48
5	5.97	7.00	1.00	7.00	1.94
6	6.87	7.00	6.00	7.00	0.32
7	4.00	5.00	1.00	7.00	2.48
8	5.78	7.00	1.00	7.00	1.91
9	6.82	7.00	3.00	7.00	0.74
10	5.72	7.00	1.00	7.00	1.71
11	4.22	6.50	0.00	7.00	3.24
12	6.83	7.00	5.50	7.00	0.41
13	6.48	7.00	1.00	7.00	1.43
14	5.32	6.50	1.00	7.00	2.16
15	6.08	7.00	1.00	7.00	1.61

Subtitle: ECHO = Expected Consequences of Hearing aid Ownership; SD: Standard Deviation

To carry out the translation and cultural adaptation, the previously proposed methodology was used[11]. In the stages of translation, back-translation and proofreading, the necessary cultural adaptations were made by the translation and proofreading teams. In the pre-testing stage, the researchers applied it to a sample of the target population.

Through the application of the questionnaire it was also possible to add an extra methodological phase: to evaluate intra- and inter-researcher reproducibility. Significance was observed between the two intra-researcher applications, demonstrating the reliability of the questionnaire, as previously performed by Scheffer and Mondelli[15].

Table 3. Distribution regarding the subscales of the Questionnaire.

ECHO Subscale	Aplicação	Média	Mediana	Mínimo	Máximo	DP
Positive effect	1ª	6.39	6.50	4.67	7.00	0.59
	2ª	6.43	6.67	5.00	7.00	0.55
Services and costs	1ª	6.11	6.33	3.33	7.00	0.92
	2ª	6.04	6.33	4.00	7.00	0.93
Negative features	1ª	4.48	4.67	1.00	7.00	1.77
	2ª	4.52	4.83	0.67	7.00	1.84
Personal image	1ª	5.29	5.00	1.33	7.00	1.51
	2ª	5.26	5.00	3.00	7.00	1.19
Total	1ª	5.73	5.80	4.20	6.93	0.68
	2ª	5.74	5.77	3.87	6.67	0.65

Subtitle: ECHO = Expected Consequences of Hearing aid Ownership; SD = Standard Deviation

Inter-researcher reproducibility was also assessed using a third application performed by Interviewer 2. The statistical analysis showed that the applications by different professionals did not show significant differences, in agreement with the previous result of the German version of the questionnaire, which also showed little interference from personality in the application results[16].

In addition, it was possible to observe that the Services and Costs subscale was more punctuated as shown in Table 3, and it is possible to deduce the interference from the fact that individuals were SUS users and, despite understanding the benefit of adaptation, they yearned for guidance regarding the additional costs that the prosthesis could incur (batteries and dehumidifier, for example). This data is confirmed by observing Table 2 in which the highest score was directed to the question "My hearing aid will be worth it".

In previous studies, it was demonstrated that hearing aid users, mainly inexperienced, had exaggerated positive expectations in relation to the characteristics of the hearing aid, which are generally considered negative[10,17]. Therefore, it is necessary to emphasize the importance of knowledge regarding the expectations of the patient and the performance of the speech therapist in the process of adaptation and rehabilitation of the future hearing aid user since this professional can guide and make the appropriate adjustments, aiming at reducing complaints that are related to hearing aids or hearing[18].

Thus, knowing the expectation of the future hearing aid user will help in understanding their needs for the best choice of features and adjustments of the device, aiming at their rehabilitation and better quality of life.

CONCLUSION

It was possible to translate and culturally adapt the Expected Consequences of Hearing aid Ownership (ECHO) questionnaire into Brazilian Portuguese since significant intra-researcher reproducibility was observed for most questions and there was no significant inter-researcher difference.

The ECHO questionnaire proved to be easy to apply and is widely used for different age groups, which makes it useful to check the patient's expectations and guide the speech therapist during the adaptation and guidance of the patient regarding unrealistic expectations, preventing possible frustration with the patient use of amplification.

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Annex 1. *Expected Consequences of Hearing aid Ownership* (ECHO)

ECHO - Expected Consequences of Hearing aid Ownership

NAME _____ GENDER M F

DATE OF BIRTH ____/____/_____ TODAY'S DATE ____/____/_____

INSTRUCTIONS	A Not At All B A Little C Somewhat D Medium E Considerably F Greatly G Tremendously
Listed below are statements about hearing aids. Please circle the letter that indicates the extent to which you agree with each statement. Use the list of words on the right to determine your answer.	

How much do you agree with each statement?

1.	My hearing aids will help me understand the people I speak with most frequently.	A B C D E F G
2.	I will be frustrated when my hearing aids pick up sounds that keep me from hearing what I want to hear.	A B C D E F G
3.	Getting hearing aids is in my best interest.	A B C D E F G
4.	People will notice my hearing loss more when I wear my hearing aids.	A B C D E F G
5.	My hearing aids will reduce the number of times I have to ask people to repeat.	A B C D E F G
6.	My hearing aids will be worth the trouble.	A B C D E F G
7.	Sometimes I will be bothered by an inability to get enough loudness from my hearing aids without feedback (whistling).	A B C D E F G
8.	I will be content with the appearance of my hearing aids.	A B C D E F G
9.	Using hearing aids will improve my self-confidence.	A B C D E F G
10.	My hearing aids will have a natural sound.	A B C D E F G
11.	My hearing aids will be helpful on most telephones without amplifiers or loudspeakers. (If you hear well on the telephone *without* hearing aids, check here o)	A B C D E F G
12.	The person who provides me with my hearing aids will be competent.	A B C D E F G
13.	Wearing my hearing aids will make me seem less capable.	A B C D E F G
14.	The cost of my hearing aids will be reasonable.	A B C D E F G
15.	My hearing aids will be dependable (need few repairs).	A B C D E F G

Please respond to these additional items.

LIFETIME HEARING AID EXPERIENCE (includes all old and current hearing aids)	DAILY HEARING AID USE	DEGREE OF HEARING DIFFICULTY (without wearing a hearing aid)
None	None	None
Less than 6 weeks	Less than 1 hour per day	Mild
6 weeks to 11 months	1 to 4 hours per day	Moderate
1 to 10 years	4 to 8 hours per day	Moderately Severe
Over 10 years	8 to 16 hours per day	Severe

ECHO Scale: Items & Subscales

SCALE	ITEMS (*) = reversed item
Positive Effect	1, 3, 5, 6, 9, 10
Service & Cost	12, 14, 15
Negative Features	2*, 7*, 11
Personal Image	4*, 8, 13*

Instructions for Manual Scoring of the ECHO

1) Assign a value for each answer from the table below

Response	Not a Reversed Item	Reversed Item
A Not At All	1	7
B A Little	2	6
C Somewhat	3	5
D Medium	4	4
E Considerably	5	3
F Greatly	6	2
G Tremendously	7	1

2) Calculate the average score for each subscale, e.g., if items for the Negative Features subscale have assigned scores of 6,4,and 3, the Negative Features subscale score is (6+4+3)/3 = 4.3

3) The Global Score is the mean of the scores for all the items.

4) If the box is checked in item 11 (hears well on the telephone without hearing aids), omit this item even if an answer was also selected from the scale.

Appendix 1. Questionário de Expectativa com Uso de Auxiliares Auditivos - tradução

ECHO - Expected Consequences of Hearing aid Ownership

Questionário de Expectativa com Uso de Auxiliares Auditivos

Nome: _____ Sexo: M F

Data de nascimento __/__/__ Data __/__/___

Instruções: abaixo estão listadas opiniões sobre os aparelhos auditivos. Por favor, circule a letra que indica o grau em que você concorda com cada afirmação. Use a lista de palavras à direita para determinar sua resposta.	A nunca B pouco C mais ou menos D moderadamente E consideravelmente F muito G bastante

Quanto você concorda com cada afirmação?

1.Meu aparelho auditivo me ajudará a entender as pessoas com quem falo mais frequentemente.	A B C D E F G
2.Ficarei frustrado quando meu aparelho auditivo detectar barulhos que me atrapalhem de ouvir o que eu quero ouvir.	A B C D E F G
3.Obter aparelho auditivo é meu maior interesse.	A B C D E F G
4. As pessoas notarão mais minha perda de audição quando eu usar aparelho auditivo.	A B C D E F G
5. Meu aparelho auditivo irá reduzir o número de vezes que eu tenho que pedir às pessoas para repetir.	A B C D E F G
6. O meu aparelho auditivo valerá a pena.	A B C D E F G
7. Posso ser incomodado por um apito se eu aumentar muito o volume do meu aparelho auditivo.	A B C D E F G
8. Eu vou estar satisfeito com a aparência do meu aparelho auditivo.	A B C D E F G
9. Usar aparelho auditivo irá melhorar minha autoconfiança.	A B C D E F G
10. O meu aparelho auditivo terá um som natural.	A B C D E F G
11. O meu aparelho auditivo será útil na maioria dos telefones, sem amplificadores ou alto-falantes. (Se você ouvir bem no telefone sem aparelho auditivo, assinale aqui □)	A B C D E F G
12. O profissional que definir meu aparelho auditivo será competente.	A B C D E F G
13. Usar aparelho auditivo irá me tornar menos capaz.	A B C D E F G
14. O custo do meu aparelho auditivo será razoável.	A B C D E F G
15. Meu aparelho auditivo será confiável (precisará de poucos reparos).	A B C D E F G

Por favor, responda aos itens adicionais.

TEMPO DE EXPERIÊNCIA COM APARELHO AUDITIVO (inclui todos os aparelhos auditivos antigos e atuais)	USO DIÁRIO DO APARELHO AUDITIVO	GRAU DE DIFICULDADE DE AUDIÇÃO (sem uso do aparelho auditivo)
□ Nenhum	□ Nenhum	□ Nenhuma
□ menos de 6 semanas	□ Menos de 1 hora por dia	□ Pouca
□ 6 semanas a 11 meses	□ 1 a 4 horas por dia	□ Moderada
□ 1 a 10 anos	□ 4 a 8 horas por dia	□ Severa
□ mais de 10 anos	□ 8 a 16 horas por dia	□ Grave

Escala ECHO: itens e subescalas

ESCALA	ITENS (*) = item invertido
Efeito positivo	1,3,5,6,9,10
Serviço e Custo	12,14,15
Recursos Negativos	2*,7*,11
Imagem Pessoal	4*,8,13*

Instruções para marcação manual do ECHO

1) Atribuir um valor para cada resposta da tabela abaixo:

Resposta	Não é um item invertido	Item invertido
A Nunca	1	7
B Pouco	2	6
C Mais ou menos	3	5
D Moderadamente	4	4
E Consideravelmente	5	3
F Muito	6	2
G Bastante	7	1

2) Calcule a pontuação média para cada subescala, por exemplo, se os itens da subescala de Características Negativas tiverem atribuído pontuação de 6,4 e 3, o escore de subescala de Características Negativas é (6 + 4 + 3) / 3 = 4,3

3) A Pontuação Global é a média das pontuações para todos os itens.

4) Se o campo estiver assinalado no item 11 (ouve bem no telefone sem ajuda), omita esse item, mesmo que uma resposta também tenha sido selecionada na escala.