



Quality of life: comparison between elderly hearing aid users who participated in a support group and those who did not

Qualidade de vida: comparação entre idosos usuários de aparelho de amplificação sonora individual participantes e não participantes de grupos de apoio

Calidad de vida: comparación entre adultos mayores usuarios de aparato amplificador de sonido individual participantes y no participantes de grupos de apoyo

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Abstract

Introduction: communication is a vital need of all human beings; and is directly affected by hearing loss, particularly among the elderly. In this context, support groups have emerged, to improve their quality of life. **Objective:** to compare the quality of life of elderly people users of hearing aids, who participate in a support group of the *Serviço Ambulatorial de Saúde Auditiva (SASA)* at a Community University, with those non-participants. **Method:** The SF-36 and HHIE-S questionnaires were applied to 27 elderly,

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who were divided into two groups – Group 1 (15 elderly individuals non-participants in the support group), Group 2 (12 participants). **Results:** there was a prevalence of females (58.33%), the age group of Group 2 was higher; hearing handicap was present in both groups, but to a lesser extent in Group 2 (66.37%); there was a major difference between the groups on the emotional scale; the perception of hearing handicap was greater among females (44.44% - 1 and 33.33% - 2); the perception of quality of life (SF-36) was greater in Group 2 (averages from 45.83 to 91.67); the best average scores in the SF-36 in Group 1 were obtained by the subjects aged 60 to 75 years (39.33% to 86.93%) while in Group 2, the best average scores were obtained for the age range 75 to 91 years (47.5% to 93.75%). **Conclusion:** the higher the age range, the greater the importance of participation in the support group, to improve quality of life and acceptance of the hearing loss.

Keywords: Quality of life; Aged; Hearing loss; Hearing aids.

Resumo

Introdução: a comunicação é uma necessidade vital do ser humano; é através dela que o indivíduo mantém suas relações sociais. Sendo a deficiência auditiva uma das alterações mais incapacitantes nos idosos, os grupos de apoio são estratégias favoráveis para promover sua qualidade de vida. **Objetivo:** comparar a qualidade de vida de idosos com deficiência auditiva usuários de AASI que participam do grupo de apoio do Serviço Ambulatorial de Saúde Auditiva (SASA) em uma Universidade Comunitária, com os que não participam. **Método:** foram aplicados os questionários SF-36 e HHIE-S a 27 idosos usuários de AASI divididos em dois grupos – Grupo 1 (15 idosos não participantes do grupo apoio) e Grupo 2 (12 participantes). **Resultados:** houve predomínio do sexo feminino (58,33%); a faixa etária do Grupo 2 foi superior à do Grupo 1; o *handicap* auditivo esteve presente nos dois grupos, porém menor no Grupo 2 (66,37%); há maior diferença entre os grupos na escala emocional; a percepção do *handicap* auditivo foi maior no sexo feminino (44,44% - Grupo 1 e 33,33% - Grupo 2); a percepção de qualidade de vida (SF-36) foi maior no Grupo 2 (de 45,83 a 91,67%); as melhores médias de escore no SF-36 no Grupo 1 foram obtidas pelos sujeitos de menor faixa etária (39,33% a 86,93%) e, no Grupo 2, foram obtidas pela maior faixa etária (de 47,5% a 93,75%). **Conclusão:** quanto maior a faixa etária, maior a importância da participação no grupo de apoio para melhorar a qualidade de vida e a aceitação da perda auditiva.

Palavras-chave: Qualidade de vida; Idoso; Perda auditiva; Auxiliares de audição.

Resumen

Introducción: la comunicación es una necesidad vital del ser humano. Es por su intermedio que el mantiene sus relaciones sociales. Siendo la deficiencia auditiva una de las alteraciones mas incapacitantes en los adultos mayores, los grupos de apoyo son estrategias favorables para promover su calidad de vida. **Objetivo:** comparar la calidad de vida de adultos mayores usuarios de AASI que participan del grupo de apoyo del Servicio Ambulatorial de Salud Auditiva (SASA) en una Universidad Comunitaria, con los que no participan. **Metodología:** se aplicaron los cuestionarios SF-36 y HHIE-S a 27 adultos mayores usuarios de AASI, divididos en dos grupos – Grupo 1 (15 individuos no participantes del grupo de apoyo), Grupo 2 (12 participantes). **Resultados:** hubo predominio del sexo femenino (58,33%), siendo la franja etaria del Grupo 2 superior a la del Grupo 1; el *handicap* auditivo estuvo presente en los dos grupos, aunque era menor en el Grupo 2 (66,37%); hay mayor diferencia entre los grupos en la escala emocional; la percepción del *handicap* auditivo fue mayor en el sexo femenino (44,44% - 1 y 33,33% - 2); la percepción de calidad de vida (SF-36) fue mayor en el Grupo 2 (medias de 45,83 a 91,67); las mejores medias de puntuación en el SF-36 en el Grupo 1 fueron logradas por los sujetos de 60 a 75 años (39,33% a 86,93%), y en el Grupo 2 por los sujetos de 75 a 91 años (47,5% a 93,75%). **Conclusión:** cuanto más avanzada la franja etaria, mayor la importancia de la participación en el grupo de apoyo para mejorar la calidad de vida y la aceptación de la pérdida auditiva.

Palabras clave: Calidad de vida; Anciano; Pérdida auditiva; Audífonos.

Introduction

The hearing loss due to the aging process is called presbycusis, and is currently considered a public health problem due to its high occurrence rate, which affects communication and interferes with people's social life¹.

This auditory alteration interferes with the functionality of the body, limiting activities and restricting the participation of the hearing impaired in situations of daily living, but the quality of life improves substantially with the use of the individual sound amplification apparatus (AASI). This device should be complemented with other resources, such as participation in support groups, which is essential for the adaptation of the elderly to AASI².

Magalhães and Iório³ carried out a study with the objective of investigating the quality of life of the elderly before and after the speech-language intervention using AASI. The sample consisted of two groups, group 1 by elderly with less age and group 2 by older age. Using the questionnaires SF-36, which evaluates the quality of life through participation restrictions, and HHIE, which evaluates the auditory handicap. The results of the study showed that there was less perception of the participation restrictions after the speech-language intervention. Older males and older adults present greater self-perception of their difficulties, as well as greater auditory handicap. The limitation of participation is the limitations imposed on the subjects by a physical disorder, such as hearing or psychic deficiency, such as dementias, both common in advanced ages.

Auditory handicap represents the negative impact of hearing impairment on the subject's well-being and quality of life. In addition to the non-auditory consequences, the disadvantage imposed by the deficiency or hearing incapacity that limits the psychosocial functioning of the subject¹¹. These are social and emotional manifestations resulting from disability and hearing impairment, and may affect the hearing impaired, his/her family and/or society, and their measures involve a relationship between disability, life habits and the socio-cultural and physical environment of the subject¹¹.

During the aging process several changes occur; the increase in vulnerability is one of them, making the subject more exposed to the aggressions of the organism itself and the environment that

surrounds it. All subjects present changes during life, but these occur in a differentiated way in each individual and, as time passes, the changes become more evident⁴.

The aging process can be divided into two parts: senescence, relating to physiological aspects, functional, organic and psychological changes, which are considered normal, in which presbycusis and senility are highlighted, related to the alterations arising from diseases that occur in the life cycle⁴.

Since hearing loss is related to the process of senescence, linked to functional, organic and psychological alterations, the groups of coexistence for the elderly have a therapeutic power, aiming to minimize the effects of hearing loss in the life of the elderly.

Groups of elderly people are not only places for recreation, but where they can re-socialize, work and use communication, create friendships and bonds, exchange experiences that bring benefits to each person's self-esteem and improve their social relations. These groups serve as a therapeutic resource to improve their acceptance of their difficulties⁵.

Such groups are a form of interaction, social inclusion, and a way of rescuing autonomy, of living with dignity and within the scope of being and being healthy⁶.

Psychological well-being and social interaction are extremely important factors for the improvement of the perception of quality of life in the elderly population, considering that the exchanges with each other are enriching⁷.

Nowadays, the elderly have more free time and spirit to participate in social and mental activities; this makes the elderly feel isolated and unmotivated when there is no stimulation for such activities, and may create a change in their emotional sphere⁸.

In the institution where the present study was carried out, the support group for the elderly with hearing impairment appeared in the year 2000, as an alternative service for people who had the same demand, in order to offer a space for the exchange of experiences between the participants⁹.

In these 16 years of group, several studies were carried out regarding the audiological profile, perception of the hearing deficiency and use of hearing aids; however, no study investigated the quality of life of the elderly.

Among the studies, one of 2016 is highlighted, in which the IOI-HA self-evaluation questionnaire was applied to the elderly participants, 38.71% of whom presented scores greater than 30, indicating benefit and satisfaction with the use of hearing aids. The authors mention that the participation in the group becomes relevant for the adaptation of the AASI, improvement of their communication skills, social conviviality and self-esteem, also proposing a continuity of the study, in order to verify the real importance of the support group in the quality of life of elderly users of AASI¹⁰.

Thus, the objective of the present study was to compare the quality of life of hearing impaired elderly users of AASI who participate in the support group of the Ambulatory Health Care Service (AHCS) at a community university, with those who do not participate.

Methods

This is a quantitative, observational and cross-sectional study, carried out in the AHCS of Universidade do Vale do Itajaí - UNIVALI, specifically in the Support Group for elderly users of AASI, after approval by the Committee of Ethics in Research (CER) under consubstantiated opinion n° 1,355,809 of December 08 2015.

The study population consisted of elderly individuals aged 60 years or older, hearing impaired and hearing loss users for at least one year, attended by the AHCS surveyed. The sample consisted of 27 elderly people divided into two groups:

- Group 1: 15 people who have never participated in support groups;
- Group 2: 12 people who have effectively participated in the elderly group for at least one year.

In order to collect data, two questionnaires were used: (a) SF-36 (Annex 1), which evaluates the quality of life and, (b) Hearing Handicap Inventory for Elderly - Screening (HHIE-S, Annex 2), which evaluates the self-perception (handicap) of hearing impairment.

The SF-36 is composed of 11 questions about self-perception and participation restriction, involving health in general; daily and daily activities; family and friends interaction; body pain; job; vitality; strength; emotional and physical state and social activities. Its analysis is performed from the calculation of the score for each domain¹².

The SF-36 is analyzed by a raw scale, where the final value does not have a unit of measure, which can range from zero to 100, with 0 being the worst result and 100 being the best, for each domain. Thus, the closer to 100, the better the quality of life in that domain¹².

The HHIE-S is composed of ten questions on socialization; difficulties in communication and interaction with family and friends; difficulty in hearing whispered speech; hearing loss; difficulty attending church, restaurants and public places; difficulties in listening to television or radio, and limiting personal and social life. For the analysis of the HHIE-S results, the calculation proposed by Silva, Silva and Aurélio¹³ was used, in which from 0 to 6 points was considered as having no handicap presence; 7 to 16 points indicated mild to moderate perception and scores greater than 16 points indicated a serious or significant perception.

At the end of the data collection, they were typed in an Excel version 2010 worksheet and analyzed statistically according to the scores of the SF-36 and HHIE-S questionnaires.

The statistical analysis was descriptive, with calculation of central tendency and dispersion measures for SF-36 domain scores and total social/situational and emotional score of HHIE-S with simple and relative frequency distribution.

To verify if there was a statistically significant difference between the two groups studied in the scales of the HHIE-S questionnaire scales, the Mann-Whitney test was applied with a significance level of $p < 0.05$.

In order to correlate the perception of the handicap with the participation in support group, sex and age, the Fisher test was applied with significance level of $p < 0.05$.

After the research was completed, a return to AHCS was performed, with the results obtained through a meeting in the service, previously scheduled with the person responsible for the same.

As a feedback to the elderly group, the participants attended the presentation of this article in open bench and the researchers participated in a monthly meeting. This meeting presents the results obtained and the theme "Quality of life" was discussed, besides setting a Banner in the AHCS waiting room, where the non-participants in the support group were able to access the results.

Results

Table 1 shows the distribution of the subjects studied by age group and participation in the group and table 2 shows the distribution regarding gender and participation in the group.

In table 1, it is observed that the elderly of group 2 presented a larger age group than those of group 1; table 2 shows a predominance of females in both groups (Group 1 - 10 - 66.67%, Group 2 - 7 - 58.33%), with all the elderly living close to the AHCS surveyed.

Table 1. Distribution of the subjects studied by age group and group participation

Age group	Group 1		Group 2	
	N	%	N	%
60 -- 75	12	80	5	41,67
75 -- 91	3	20	7	58,33
Total	15	100	12	100

Table 2. Distribution of the subjects studied by sex and group participation

Gender	Group 1		Group 2	
	N	%	N	%
Female	10	66,67	7	58,33
Male	5	33,33	5	41,67
Total	15	100	12	100

Table 3 shows the results regarding the handicap perception of the studied subjects, while in table 4 these results are related to gender and in table 5 to the age group. Table 6 shows the results

of measures of central tendency and dispersion, obtained in the HHIE-S questionnaire by scaled/evaluated score.

Table 3. Distribution of subjects studied by handicap perception

Handicap perception	Group 1		Group 2	
	N	%	N	%
No	5	33,33	4	33,33
Yes	10	66,37	8	66,37
Total	15	100,00	12	100,00

Fisher's exact test: $p = 1,0000 > 0,05$ not significant.

Table 4. Distribution of subjects studied by perception of handicap according to sex

Handicap perception	Group 1		Group 2	
	Female	Male	Female	Male
No	2	3	1	3
Yes	8	2	6	2
Total	10	5	7	5

Fisher's exact test: $p = 0,03930 < 0,05$ significant.

Table 5. Distribution of the subjects studied by perception of handicap according to the age group

Handicap perception	Group 1		Group 2	
	60 -- 75	75 -- 91	60 -- 75	75 -- 91
No	3	2	1	3
Yes	9	1	2	2
Total	12	3	5	7

Fisher's exact test: $p = 0,21914 > 0,05$ not significant.

Table 6. Central trend and dispersion measures obtained in the HHIE-S questionnaire by assessed scale

HHIE-S	Group	Mode	Median	Medium	Standard Deviation	Minimun	Maximum
Emotional scale	1	0	2	5,47	6,61	0	18
	2	0	3	5,17	5,56	0	16
Social scale	1	8	8	9,07	6,54	0	20
	2	8	7	7,5	6,1	0	20
Total scale	1	4	10	14,53	12,84	0	38
	2	2	10	12,67	10,97	0	36

Mann-Whitney $p = 0,714393 > 0,05$ not significant.

The same proportion of elderly people with regard to the perception of handicap in the two groups studied (tables 3, 4 and 5) are observed, with the elderly being equally divided in the light to moderate and significant perception in both groups. In group 1, four elderly of the smallest age group and one of the elderly, present mild to moderate perception, being four women and one man. In group 2, three women and one man presented mild to moderate perception and, for significant perception, the same proportion was obtained, being two elderly of each age group in both handicap levels. After a statistical test it can be observed that the perception regarding the auditory handicap of women is seven times greater than that of men.

Table 5 shows that in both scales the elderly of group 1 have a greater perception of the auditory handicap and, in table 6, it is observed that these

results indicate greater impact of the hearing loss in the life of the elderly. The standard deviation was considered high in the two groups tested, which demonstrates heterogeneity of the studied elderly. In addition, when assessing the maximum score, it is observed that in the social scale the handicap is higher in group 1, but in the emotional scale the result was identical in both groups. Statistically, there was no significant difference in the mean scores presented by the two groups on the HHIE-S questionnaire ($p = 0.714393 > 0.05$).

Table 7 presents the results of the central tendency and dispersion measures obtained in the SF-36 questionnaire according to the domains evaluated by the questionnaire, while in table 8 these results are related to the gender and in table 9 the results are related to the age group.

Table 7. Central trend and dispersion measures obtained in questionnaire SF-36

SF-36	Group	Mode	Median	Medium	Standard Deviation	Minimum	Maximum
Functional capacity	1	90	85	70	28,85	20	100
	2	25	67,5	58,75	29,4	5	95
Limitation by physical aspects	1	100	50	51,67	40,61	0	100
	2	100	100	77,08	41,91	0	100
Pain	1	100	52	60,20	32,17	10	100
	2	100	100	91,33	11,42	72,00	100
General state of health	1	35	35	39,33	16,89	10	65
	2	55	55	45,83	16,21	15	60,00
Vitality	1	85	80	72,33	22,98	10	90
	2	35	75	72,92	23,3	35	100
Social aspects	1	100	100	85,83	24,49	25	100
	2	100	100	91,67	17,13	50	100
Limitation by emotional aspects	1	100	100	71,11	45,19	0	100
	2	100	100	83,33	38,92	0	100
Mental health	1	100	92	86,93	18,79	28	100
	2	60	78	71,33	26,52	16	100

Table 8. Distribution of results regarding the field of the SF-36 questionnaire regarding gender

SF-36	Group	Gender	Medium
Functional capacity	1	Female	68,33
		Male	70,79
	2	Female	63,64
		Male	58,75
Limitation by physical aspects	1	Female	57,14
		Male	61,84
	2	Female	75
		Male	77,08
Pain	1	Female	70,05
		Male	69,95
	2	Female	93,09
		Male	91,33
General state of health	1	Female	41,19
		Male	42,11
	2	Female	48,64
		Male	45,83
Vitality	1	Female	72,62
		Male	71,58
	2	Female	75
		Male	72,92
Social aspects	1	Female	89,88
		Male	92,76
	2	Female	100
		Male	91,67
Limitation by emotional aspects	1	Female	74,6
		Male	71,93
	2	Female	81,82
		Male	83,33
Mental health	1	Female	81,71
		Male	80,21
	2	Female	74,55
		Male	71,33

Table 9. Distribution of the results as to the field of the SF-36 questionnaire in relation to the age group

SF-36	Group	Age group	Medium
Functional capacity	1	60 -- 75	70
		75 -- 91	65
	2	60 -- 75	58,75
		75 -- 91	62,5
Limitation by physical aspects	1	60 -- 75	51,67
		75 -- 91	62,5
	2	60 -- 75	77,08
		75 -- 91	82,5
Pain	1	60 -- 75	60,20
		75 -- 91	56,50
	2	60 -- 75	91,33
		75 -- 91	92,4
General state of health	1	60 -- 75	39,33
		75 -- 91	47,5
	2	60 -- 75	45,83
		75 -- 91	47,5
Vitality	1	60 -- 75	72,33
		75 -- 91	63,75
	2	60 -- 75	72,92
		75 -- 91	75
Social aspects	1	60 -- 75	85,83
		75 -- 91	84,38
	2	60 -- 75	91,67
		75 -- 91	93,75
Limitations by emotional aspects	1	60 -- 75	71,11
		75 -- 91	75
	2	60 -- 75	83,33
		75 -- 91	80
Mental health	1	60 -- 75	86,93
		75 -- 91	74
	2	60 -- 75	71,33
		75 -- 91	74,4

Table 1 shows that group 1 had a better score in only two domains compared to group 2 (functional capacity and mental health). In the other domains, group 2 had better scores, and in the vitality domain the two groups are similar.

In both groups, women had a better score than men (table 8), and in group 1, the elderly with the lowest age group had better scores in most domains, and in group 2 the elderly had a higher age (75 to 91 years) present the best scores in most domains (table 9).

Discussion

The predominant age group in group 1 (non-participants) is 60-75 years (80%) and, in group 2 (participants), the predominant age group is 75 to 91 years of age (58.33%) (Table 1). Thus, group 2 showed itself in a larger age group. Studies carried out with the elderly show a predominance of older people aged 60 to 69 years (51.1%)^{3;14}, which corroborates the findings found in group 1 but diverges from group 2, which were the findings present in this study.

In relation to gender, there was a predominance of female gender in both Group 1 (66.67%) and Group 2 (58.33%), which is also reported in the literature^{3;14;15;16}, with percentages ranging from 50 to

93% female predominance in groups and research. However, it diverges from the study conducted by Teixeira et al.¹, with the objective of verifying if there is an improvement in the quality of life of adults and the elderly after the adaptation of hearing aids, interviewing a majority of men (55%).

The predominance of female subjects in both groups is pointed out in the literature as frequent in studies describing participation in support groups. In this sense, Motta¹⁷ mentions that for many years women have occupied roles outside of society, taking care of their homes and, today, many feel alone because their husbands and children work or study outside the home. Nowadays, women have come to know and enjoy new freedom in social groups. In relation to the municipality of origin, all the elderly are close to the AHCS surveyed, 12 (44.44%) in Itajaí - 4 in group 1 (G1) and 8 in group 2 (G2); 3 (11.11%) in Penha - 2 G1 and 1 G2; 2 (7.41%) in Bombinhas, Camboriú and Navegantes, respectively, of which in each municipality 1 is G1 and 1 is G2. In Balneário Camboriú resides 1 (3.70%) G2 and, in the municipalities of Blumenau, Pomerode, Porto Belo, Presidente Getúlio and Salete, there is 1 (3.70%) G1 per municipality.

There was a same proportion of subjects studied regarding the perception of the handicap in the two groups (Tables 2, 3 and 4). In group 1, 5 (33.33%) elderly - 4 in the 60-75 age group and 1 in the 75-91 age group, presented mild to moderate perception, of whom 4 were women and 1 man and 5 (33, 33%) of the age group of 60 to 75 years, present significant perception, being 4 women and 1 man.

Nevertheless, in Group 2, 4 (33.33%) presented mild to moderate handicap, being 3 women and 1 man and 4 (33.33%) significant for 3 women and 1 man, 2 of the age group of 60 to 75 Years and 2 years from 75 to 91 years at both levels of perception. It is noteworthy that in both groups the perception of the handicap was higher in females and with lower age range (60 to 75 years). There was no statistically significant difference in the perception of the handicap in the two groups studied ($p = 1.0000$, Table 2), nor was there a significant difference in age and handicap perception ($p = 0.21914$, table 4). However, there was a statistically significant difference regarding the influence of gender on the handicap perception ($p = 0.03930$, table 3).

The fact that women present more in relation to men and present a greater perception of the

handicap, with a statistically significant difference, is supported by literature^{18; 19}. It is described that women present a more negative impact of hearing impairment on the level of quality of life related to health, even though they are more socially connected in the world of relationships and interdependencies.

In both scales of the HHIE-S the elderly of group 1 has greater perception of the auditory handicap (table 5).

The fact that group 2 had a larger age group influenced the results of the study, so that there was no general difference between the groups regarding the perception of the handicap. It is expected that the handicap will be proportionally higher in relation to the increase of the age group,¹⁹ that was not observed in the present study.

The literature¹⁹ points out that subjects older than 80 years present the greatest auditory handicaps, that is, greater perception of the difficulties related to hearing.

Since there was no statistically significant difference in the auditory handicap perception in the two groups, there is a divergence of the present study with the literature^{3; 20; 13}. It indicates that speech-language intervention, such as that performed in the support group for elderly users of hearing aids, diminishes the perception of the handicap and improves communicative skills and dialogues in noisy environments.

The authors^{3; 20} mention that speech-language intervention with auditory training positively assists in improving the quality of life and reducing the perception of the impact of hearing impairment in this. It is emphasized that auditory training is not performed with regular frequency in the support group studied, which may justify the observed differences.

When comparing the auditory handicap in the emotional and social scales, it was observed that in both groups 1 and 2, the handicap was higher in the social scale (medium of 9.07 for group 1 and 7.5 for group 2) (Table 6). This result corroborates the findings of Santos et al.¹⁹, who observed that social issues presented a higher percentage of affirmative responses, indicating significant complaints of difficulties of auditory origin in the daily life, which may result in difficulty of insertion of the elderly in the social environment¹⁹.

Even with no statistically significant difference between the two groups, it can be seen that



the elderly in group 2 presented a lower auditory handicap than those presented by the elderly in group 1 (Table 6). This result is supported by the studies of Bittar and Lima²¹, which describe that participation in support groups strengthens affective bonds, improves health and personal motivation, and elevates self-esteem.

Adults and elderly people who make effective use of hearing aids have satisfactory quality of life¹⁶, and support groups are extremely important in relation to the quality of life of the elderly, considering that the domain that contributes most to this quality of life is social¹⁵.

Regarding the scores by domain evaluated, it is observed that Group 1 presents a better score in the domain of functional capacity (mean = 70) and mental health (mean = 86.93), comparing with Group 2. In relation to the others (Mean = 77.08), pain (mean = 91.33), general health status (mean = 45.83), social aspects (mean = 91.67), Limitation by emotional aspects (mean = 83.33). In the vitality domain, the means of the two groups are similar, with Group 2 with a mean of 72.92 and Group 1 with a mean of 72.33 (table 7)

Regarding sex, in six domains women in group 2 had a better medium score compared to men, and in group 1, women had a better average score in four of the eight domains evaluated (Table 8).

When the influence of the age group on the SF-36 questionnaire on quality of life was verified, in group 1 the elderly in the age group of 60 to 75 years had a better score in five of eight domains. In group 2 the best scores were obtained by the age group of 75 to 91 years, in seven of eight domains. The only domain with a better score in the older age group of the elderly in group 2 is the limitation due to emotional aspects (Table 9).

In both groups the standard deviation is high in all domains, showing great heterogeneity of the evaluated subjects.

Results found in the literature^{21; 22} show that one of the main reasons elderly people participate in support groups is to improve their self-esteem through their social life, creating and maintaining affective bonds. In researches with groups aimed at users of AASI, quality of life improves after adaptation of hearing aids, but the elderly still feel dissatisfied with the lack of leisure opportunities and their personal relationships.

The fact that women present a better mean of the quality of life scores assessed by the SF-36

(Table 8) in the present study is supported by the literature¹, which mentions that women have better scores than men, the lowest values being obtained in the study (58.3%) and the largest in social relations (75.0%), physical domain (60.7%) and environment (68.7%). However, Lisboa (2012)²³ reports that this difference in perception of quality of life by men and women is not statistically significant.

Regarding the influence of age on the perception of quality of life, the literature³ points out that in order to minimize the psychosocial reactions resulting from hearing impairment, it is necessary to include the elderly in auditory rehabilitation programs.

Andrade and Martins¹⁸ mention that the older the elderly, lower their self-perception of their quality of life; this fact is verified only in relation to Group 1, in the present study, but in Group 2 the elderly with the highest age group had the best scores in seven of the eight domains of quality of life evaluated (Table 9).

This finding shows the importance of the participation of the elderly in support groups, since the majority of the elderly of Group 2, in the age group of 75 to 91 years, present better scores than the younger ones, with age group of 60 to 75 years of age of Group 1. Thus, it is possible to affirm that the quality of life and the acceptance of hearing loss are influenced by the participation in the group of support to the elderly users of AASI, mainly for the elderly of greater age group.

From the analysis of the results obtained in the present study, the only difference observed between the groups was in the correlation between gender and auditory handicap, in which the women of both groups had a greater perception of the consequences of hearing impairment in their lives.

It should be considered that although the results of the study did not show differences between the two groups in relation to quality of life, the elderly participants in the support group show in their speeches that they feel much happier and claim to have a quality of life after starting activities in the group.

The participation of the elderly in support networks is a way of interacting with other people who are going through the same daily situations in order to exchange experiences and stay inserted in society. It is possible to notice the lack of adherence and even some lack of knowledge of the elderly

of group 1 about the support group, since many interviewees did not know the group and others were not interested in it.

The view that support groups serve only those who are facing some problem is still widespread, and this causes the elderly to dislike the idea of participating in such groups. However, the reality of this group is different: it seeks a new way of disseminating general knowledge, providing health services, taking care of the use and handling of hearing aids and, above all, promoting socialization, avoiding exclusion from society, and enabling establishment of new friendships.

Conclusion

At the end of the study it was possible to verify that quality of life and auditory handicap of hearing impaired elderly users of hearing aids participating in a support group did not present statistically significant differences when compared to that of elderly individuals who did not participate in the group, except when the variable studied was sex.

However, it should be considered that older people with greater age and group participants present the best quality of life scores, which indicates that participation in the group assists in the quality of life of these subjects, since what is expected is that older people present greater restrictions on their quality of life.

Based on these findings, qualitative research is suggested in order to evaluate, based on the subjective perception of the participants in the support group, the real impact of this on their quality of life.

In addition, it is suggested to include a regular auditory training program in the support group studied, as it is believed that this is effective in reducing the impact of hearing impairment on the quality of life of these subjects.

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