Abstract

Objective: to analyze a population’s knowledge regarding Speech Language Pathology and Audiology. Methods: 81 subjects resident in Monte Negro city were interviewed, and were divided into three groups, G1 composed of subjects who sought for Speech Language Pathology and Audiology therapy, G2 by subjects who sought for dental care and G3 by a population which did not seek any kind of service. For quantification of knowledge about Speech Language Pathology and Audiology performance, the researchers developed a questionnaire with 10 questions. Results: The mean age of the subjects in G1 was 47.88 years, 37.44 years for G2 and to G3 37.27 years. G1 was prevalent in males, which was not observed in G2 and G3. Regarding education, the three groups showed prevalence of subjects illiterate or with incomplete primary education. When asked about the knowledge of Speech Language Pathology and Audiology practice, no difference between the groups was observed, however there was difference when combining knowledge about Speech Language Pathology and Audiology therapy care and education

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of individuals. Regarding the age at which the Speech Language Pathologist and Audiologist acts, most of the sample responded that this professional can work with any age group. When questioned about the area of actuation most of them reported the area of audiology. To make comparisons of the need for speech therapy with education and age, no difference was found. Conclusion: There was ignorance or partial knowledge about the Speech Language Pathology and Audiology, even among subjects who were waiting for Speech Language Pathology and Audiology therapy.

Keywords: Speech, Language and Hearing Sciences; Knowledge; Public Health; Professional Practice Location.

Resumo

Objetivo: Analisar o conhecimento de uma população quanto à atuação fonoaudiológica. Métodos: Participaram 81 sujeitos residentes no município de Monte Negro, Estado de Rondônia, que foram divididos em três grupos, sendo o G1 composto por sujeitos que buscaram por atendimento fonoaudiológico, o G2 por sujeitos que buscaram por atendimento odontológico e o G3 pela população que não procurou nenhum tipo de atendimento. Para a quantificação do conhecimento sobre a atuação fonoaudiológica, os pesquisadores desenvolveram um questionário composto por 10 perguntas. Resultados: A média etária dos sujeitos do G1 foi de 47,88 anos, para o G2 foi 37,44 anos e para o G3 37,27 anos. No G1 houve prevalência do sexo masculino, o que não foi observado nos G2 e G3. Quanto à escolaridade, nos três grupos houve prevalência dos sujeitos analfabetos ou com ensino fundamental incompleto. Quando questionados sobre o conhecimento da atuação fonoaudiológica, não foi observada diferença entre os grupos, no entanto houve diferença ao associar o conhecimento sobre a atuação fonoaudiológica e a escolaridade dos indivíduos. Em relação à faixa etária que o fonoaudiólogo atua, grande parte da amostra respondeu que este profissional pode atuar com qualquer faixa etária. Quando questionados sobre a área de atuação fonoaudiológica, a maior parte dos sujeitos referiu a audiologia. Ao realizar as comparações entre a necessidade de atendimento fonoaudiológico, a escolaridade e idade não foram encontradas diferenças significativas. Conclusão: Observou-se o desconhecimento ou conhecimento parcial sobre a atuação fonoaudiológica, mesmo entre os sujeitos que aguardavam pelo atendimento fonoaudiológico.

Palavras-chave: Fonoaudiologia; Audiologia; Conhecimento; Área de Atuação Profissional; Saúde Pública.

Resumen

Objetivo: Analizar el conocimiento de una población sobre la actuación fonoaudiológica. Métodos: participaron 81 sujetos que viven en el municipio de Monte Negro, Estado de Rondónia, que fueron divididos en tres grupos: el G1 compuesto por individuos que buscaban atención fonoaudiológica, el G2 por sujetos que buscaban la atención odontológica y el G3 por la población que no buscó ningún tipo de atención. Para cuantificar el conocimiento sobre la actuación fonoaudiológica, los investigadores desarrollaron un cuestionario con 10 preguntas. Resultados: la media etaria de los sujetos de G1 fue 47,88 años, para el G2 fue 37,44 años y 37,27 años para el G3. En G1 hubo predominio del sexo masculino, lo que no fue observado en el G2 y G3. En la educación, los tres grupos mostraron prevalencia de sujetos analfabetos o con enseñanza primaria incompleta. Cuando se les preguntó a respeto del conocimiento sobre la fonoaudiología, no hubo diferencia entre los grupos, sin embargo hubo diferencia al asociar el conocimiento sobre la actuación fonoaudiológica y la escolaridad de los individuos. Sobre los grupos etarios que el fonoaudiólogo actúa, la mayoría de los participantes respondieron que este profesional puede trabajar con cualquier grupo de edad. Cuando se les preguntó acerca de la área de operaciones fonoaudiológicas, la mayoría informó la Audiología. Al realizar comparaciones entre la necesidad de atención fonoaudiológica, la escolaridad y la edad no fueron encontradas diferencias significativas. Conclusión: Se observó desconocimiento o conocimiento parcial sobre la actuación de la fonoaudiología, incluso entre los sujetos que aguardaban la atención fonoaudiológica.

Palabras claves: Fonoaudiología; Audiología; Conocimiento; Salud Pública; Ubicación de la Práctica Professional.
**Introduction**

Speech, Language and Hearing Therapy is a health occupation which researches, prevents and treats alterations in the voice, language, hearing and learning\(^1\). Generally, this occupation is seen as the branch of science that approaches human communication problems as a whole\(^2\).

Although the first courses for professional graduation on the subject were created around the 1960s, the profession was formally recognized only in 1981, under the law n. 6.965/81\(^2\). After more than 3 decades since the regulation of the profession, part of the population is still not aware, or has just partial knowledge of the range of actions accomplished by this professional category, as well as the benefits its practice can bring(3-5).

Another challenge to be faced is a not equal distribution of professionals in the country. Official figures show the high concentration of professionals in states like São Paulo which has 11,920 speech, language and hearing pathologist, while at the other extreme there are states like Acre with only 45 professionals for the whole territorial extension. The state of Rondônia, where this study was developed, has 214 speech, language and hearing pathologist\(^6\). The municipality of Monte Negro, local of the development of this research, has no Speech, Language and Hearing Therapist, and population dislocation to other municipalities is necessary to be seen by this professional.

One study developed with 200 individuals, in a city in the countryside of São Paulo, had as a goal to investigate the population’s knowledge about Speech, Language and Hearing Sciences Therapy. The authors concluded that both the experimental group, composed by people accompanying patients in a School Clinic of Speech, Language and Hearing Sciences, and the control group, composed of a population not receiving Speech, Language and Hearing therapy, had restricted knowledge about Speech, Language and Hearing Therapy, restricting their vision of this science, and its rehabilitating aspect\(^4\).

The limitation of knowledge in relation to the Speech, Language and Hearing Sciences Therapy performance possibilities occurs even with other health professionals, as shown in the study which proved that 85.3% of the pediatricians who worked in the public system of Juiz de Fora, didn’t have information about the graduation courses of Speech, Language and Hearing Science, and among the ones who had such information, it was restricted to the Speech, Language and Hearing Sciences practice on speech disturbs\(^7\).

In another study done with pediatricians, the researchers concluded that even though the participants had knowledge about child communication alterations and language development, this basic knowledge was limited to the real practice of the Speech, Language and Hearing Sciences Therapist\(^8\). However, there have been some changes in this scenario due to the increase in the number of professionals in the market and to actions organized around Brazil.

An example of the actions organized which contribute to diffusion of the role of the Speech, Language and Hearing therapist is the project “FOB-USP em Rondônia”, proposed by the Faculdade de Odontologia de Bauru (Bauru Dentistry College) at Universidade de São Paulo (São Paulo University). Since 2002, the project develops actions of prevention, education and rehabilitation in the areas of speech and hearing therapy and dentistry. Twice a year, a team of undergraduate students, graduate students, staff and professors of a public university in the state of São Paulo, moves to the municipality of Monte Negro – RO, supported by the guidelines of the Unified Health System, seeking to promote better quality of life for residents.

Over the years, the project works in partnership with the city government supported by tripod teaching, research and extension. In Speech, Language and Hearing Therapy, the care occurs on the areas of language, hearing, orofacial motor skills, voice and collective health with therapeutic care for all age groups(9,10).

It is observed a possible limitation of population knowledge about the speech therapy, so this work had as goal to analyze the population of Monte Negro’s knowledge about this professional role.

**Methods**

The current research is a qualitative and quantitative transversal study. The project was submitted and approved by the Ethics on Research Committee of its origin institution under protocol n. 02978212.8.0000.5417 in accord to resolution n.
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466/12 of Conselho Nacional de Saúde (National Health Council), and all of the subjects have agreed on taking part of the research and expressed it by means of signing a free and consented agreement form.

**Casuistry**

81 residents of Monte Negro, in the state of Rondônia, took part in this study. Subjects were divided between three groups, being G1 composed of subjects who have sought speech, language and hearing therapy care, G2 by subjects who have sought dentistry care and G3 by people who have not sought any kind of care in the specified areas. It is important to mention that both the speech and hearing therapy and dentistry care mentioned on this research took place on the 25th Expedition of the Project “FOB-USP em Rondônia”.

Subjects were selected by accidental sampling. Individuals belonging to the groups 1 and 2 were covered by a single researcher (who was not performing clinical treatments) in the waiting room while waiting for speech and hearing therapy or dental care. After hearing the explanation of the research and agreeing to participate, they were sent individually to a private room to answer the questionnaire through interviews. The questions were read, and if the individual had any doubt, the question was rephrased. The subjects of group 3 were approached by the same researcher, however in the central square of the city. After hearing the explanation and agreed to participate in the study, they were taken to a private room in the municipal library of the city (close to the approach of site) to answer the questionnaire through interviews.

As inclusion criteria of all the groups, the subjects had to be 18 or more years old. For inclusion on groups 1 and 2, subjects should have been seeking speech and hearing therapy or dentistry care with the project’s “FOB-USP em Rondônia” team. To fit group 3 the participants could not have sought speech and hearing therapy and/or dentistry treatment with the team from the mentioned project.

For 13 years , the “FOB-USP em Rondônia” project, in partnership with the City of Monte Negro, performs speech and hearing therapy and dental care to the population of this municipality. Each trip has carried out about 400 speech and hearing actions in the various areas. Among the patients treated are new cases, and patients who are mainly followed in the fields of audiology (diagnosis, hearing aids adaptation and monitoring) and language (during expeditions intensive therapy sessions are held). The municipal government is responsible for promoting and scheduling of services that take place every six months for 15 days.

Data was tabulated and analysis procedures were qualitative and quantitative, being used Chi-squared test for statistical analysis (considered 5% - 0.050 significance level).

**Procedures performed**

To quantify knowledge about the speech, language and hearing therapy role, the researches developed a questionnaire composed of 10 questions which approached the following themes: subjects’ characterization; speech and hearing therapist function; actuation area; age group of actuation; their own needs on speech and hearing therapy care and knowledge of need of the same care on others.

**Results**

With basis on sampling characterization, it was observed that the average age of subjects on G1 was 47.88 years (standard deviation: 15.92), on G2 it was 37.44 years (standard deviation: 13.71) and on G3 it was 37.27 years (standard deviation: 13.05). In G1 there was prevalence of males (59.2%), which was not seen on G2 and G3, which presented 77.7% and 55.5% respectively of female presence. In regards level of education, there was prevalence of illiterate or with incomplete basic education in the three groups (respectively 55.5%, 37.0% and 25.9%), followed by subjects with complete basic education (respectively 22.2%, 33.3% and 18.5%), however G3 was the group with higher number of individuals with complete or incomplete college education (18.5%).

When asked about their knowledge about the speech and hearing therapy’s role, no statistically relevant difference was seen among groups (p=0.503.). However, there was statistically relevant difference (p=0.01.) when checking the association between knowledge of speech and hearing therapy role and individuals’ education. Table 1 points that in all groups, there was a bigger percentage of individuals who knew or have heard
When making comparisons between the need for speech and hearing therapy care and level of education (p=0.56) and age (p=0.65) no statistically relevant difference was found. The answers for the questions “Has the subject ever needed speech and hearing therapy care?” and “Does the subject know anyone who needs speech and hearing therapy care?” can be seen on Table 2.

The characteristics shown by G1, regarding the prevalence of males who sought care in the Audiology area, can be related to the fact that in the area in which the study was developed it is common the activity of wood extraction, which results in work environments highly noisy. In this environment the majority of the population is male, which presents high level of hearing complaint, as shown by subjects referred that the area of activity is related to audiology.

Discussion

The characteristics shown by G1, regarding the prevalence of males who sought care in the Audiology area, can be related to the fact that in the area in which the study was developed it is common the activity of wood extraction, which results in work environments highly noisy. In this environment the majority of the population is male, which presents high level of hearing complaint, as shown by

Table 1. Knowledge about the speech and hearing therapy role

<table>
<thead>
<tr>
<th></th>
<th>Does not know</th>
<th>Heard about</th>
<th>Knows</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1</td>
<td>6</td>
<td>9</td>
<td>12</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>22.22%</td>
<td>33.33%</td>
<td>44.44%</td>
<td>33.33%</td>
</tr>
<tr>
<td>G2</td>
<td>9</td>
<td>8</td>
<td>10</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>33.33%</td>
<td>29.63%</td>
<td>37.04%</td>
<td>33.33%</td>
</tr>
<tr>
<td>G3</td>
<td>5</td>
<td>6</td>
<td>16</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>18.52%</td>
<td>22.22%</td>
<td>59.26%</td>
<td>33.33%</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>23</td>
<td>38</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>24.69%</td>
<td>28.40%</td>
<td>46.91%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Caption 1 – Group 1 - G1: Subjects who sought speech and hearing therapy care; Group 2 - G2: subjects who sought dentistry care; Group 3 - G3: population who did not seek any kind of care in the related area.

Table 2. Needs and knowledge of the needs of third parties

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has subject ever needed speech and hearing therapy care?</td>
<td>13</td>
<td>14</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>48.15%</td>
<td>51.85%</td>
<td>100%</td>
</tr>
<tr>
<td>G2</td>
<td>23</td>
<td>4</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>85.19%</td>
<td>14.81%</td>
<td>100%</td>
</tr>
<tr>
<td>G3</td>
<td>23</td>
<td>4</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>85.19%</td>
<td>14.81%</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>22</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>72.84%</td>
<td>27.16%</td>
<td>100%</td>
</tr>
<tr>
<td>Does subject know anyone who needs speech and hearing therapy care?</td>
<td>13</td>
<td>14</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>48.15%</td>
<td>51.85%</td>
<td>100%</td>
</tr>
<tr>
<td>G2</td>
<td>14</td>
<td>13</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>51.85%</td>
<td>48.15%</td>
<td>100%</td>
</tr>
<tr>
<td>G3</td>
<td>9</td>
<td>18</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>33.33%</td>
<td>66.67%</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>36</td>
<td>45</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>44.44%</td>
<td>55.55%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Caption 2 – Group 1 - G1: Subjects who sought speech and hearing therapy care; Group 2 - G2: subjects who sought dentistry care; Group 3 - G3: population who did not seek any kind of care in the related area.
a study done inside logging companies, in which 50% of the workers have presented complaints and hearing loss\textsuperscript{12}. However, the bigger presence of male subjects in noisy environments does not just occur in logging companies, but also in industries in general such as in the case of metallurgical industries\textsuperscript{13}.

Another fact that can be related to the high demand of audiological care is due from the high level of malaria in the region given that, among the side effects of quinine treatment there are humming and hearing loss\textsuperscript{14,15}. Malaria is a recurring health issue in the area, being that approximately 15.5\% of all malaria cases in Brazil happen in the State of Rondônia\textsuperscript{16}.

When questioning about the knowledge about the role of speech and hearing therapy, it is to be highlighted the fact that there were subjects on G1 who claimed not to know, or even never having needed care from these professionals; however, these group was approached in the waiting room for speech and hearing therapy care. Such fact demonstrates the lack of knowledge about the speech and hearing therapy practices, leading the patient to believe he is cared by an “ear doctor” or a “speech doctor”, as was suggested several times by research subjects. Similar results were found in a study led by a School Clinic\textsuperscript{4}, in which the authors concluded that the same group who had ample contact with speech and hearing therapy had no knowledge of its acting area, showing restricted knowledge of its rehabilitative aspect in the area of speech, language and hearing, similar result was shown by the control group.

The difference about knowledge or its lack about the profession was related to the subject’s education level. This study has shown that the more educated the subject, bigger was the knowledge of speech, language and hearing therapy’s role. The results of a study conducted with parents and legal guardians of preschoolers\textsuperscript{17} corroborate the data here presented. The authors, when searching for information about the knowledge of parents and legal guardians on speech and hearing therapy’s acting area found that the bigger the school level, the bigger the knowledge about the profession. It was seen that in the relation between the school level and the knowledge about speech and hearing therapy areas, the majority of the subjects with fundamental level (71.42\%) had no knowledge of these professionals’ role. Among the ones who possessed high school level, 64.51\% related these professionals’ work with speech, and the only individual with college education related the profession to both speech and hearing.

The need to publicize the actions of Speech, Language and Hearing Sciences is evident in all studies shown in this research. It is not only publicity in a scientific level, but promotion to the population with aims to allow information access and to enable actions of health promotion and disease prevention. This publicity should be done in individual and collective scopes, spreading and giving value to the profession. It’s fundamental the development of such action in accord with the current health system, such as another study which has shown actions performed by speech, language and hearing therapists inserted in the Health and Family Support Centers (NASF in Portuguese, for Núcleo de apoio a Saúde da Família), who had divulged the actions performed by the professionals inside this NASF, being it by means of posters, folders and of actions among their activities with educational groups\textsuperscript{18}.

It can be said that only on the Speech, Language and Hearing Therapist’s Day the full scope of its role is shown to the population. Other actions are done on specific basis, through campaigns related to Voice, Noise Awareness, Breast Feeding and Education Speech and Hearing Therapy\textsuperscript{19}. It is possible to associate the role of the Speech, Language and Hearing Therapist to commemorative dates such as those referring to senior citizens, deafness, women, mental health, stutter, among others. All said, it is clear and necessary the class mobilization so the profession can be covered and spread in all of its specialties, reaching the whole population.

**Conclusion**

The people of Monte Negro demonstrated limited knowledge about the Speech, Language and Hearing therapy. It was observed that even some individuals waiting for the service of this professional reported being unaware of their actions.

The lack of knowledge, or partial knowledge, of the speech and hearing therapy role is a challenge that this profession must still surpass. In this study, it was possible to see that even subjects waiting for care from these professionals did not know their full role. In a local basis, the collected data will allow directing the actions performed by
the expeditionary team “FOB-USP em Rondônia”, looking to publicize and guide the community on the role of the Speech, Language and Hearing Sciences therapy. However, it can be noted the need to perform more studies on different areas of the country, with aims to outline the real population (lack of) knowledge about the actions of the Speech, Language and Hearing Therapist, professional that each day has been conquering different actuation roles and defining new specialties.

References

Annex 1 - Questionnaire for investigation of knowledge about speech and hearing therapy

1. Você sabe o que é Fonoaudiologia?
   ( ) Nunca ouvi falar  ( ) Já ouvi falar, mas não sei o que faz  ( ) Sim

2. Em sua opinião, o que faz o fonoaudiólogo?

3. Em sua opinião, o fonoaudiólogo pode atuar com pessoas de que faixa etária?
   ( ) Recém nascidos  ( ) Bebês  ( ) Crianças
   ( ) Adolescentes  ( ) Adultos  ( ) Idosos
   ( ) Todas as faixas etárias

4. Você já precisou de atendimento fonoaudiológico?
   ( ) Sim  ( ) Não
   Se a resposta é sim, qual o motivo?

5. Você conhece alguém que já precisou de atendimento fonoaudiológico?
   ( ) Sim  ( ) Não
   Se a resposta é sim, qual o motivo?

6. Você conhece alguém que precise de atendimento fonoaudiológico?
   ( ) Sim  ( ) Não
   Se a resposta é sim, qual o motivo?
7. Você acha que o profissional fonoaudiólogo cursou alguma faculdade para atuar?
   ( ) Sim  ( ) Não

8. Existe algum profissional fonoaudiólogo na cidade fora do período das expedições do projeto da USP?
   ( ) Sim  ( ) Não
   Se a resposta é sim, onde ele atende?

9. Você acha importante ter um fonoaudiólogo atendendo aqui na cidade?
   ( ) Sim  ( ) Não
   Justifique sua resposta:

Caso você pertença ao grupo 1, responda a próxima questão:

10. Você está satisfeito com o atendimento fonoaudiológico recebido durante a expedição?
    ( ) Sim  ( ) Não
    Justifique sua resposta: