

Effectiveness of referral and counter-referral systems in a high-complexity Speech, Language and Hearing healthcare service in the city of São Paulo

Caracterização dos sistemas de referência e contrarreferência em um serviço de fonoaudiologia de alta complexidade na cidade de São Paulo

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ABSTRACT

Introduction: For optimum quality in Speech, Language and Hearing (SLH) healthcare, it is essential to be aware of the flow of referrals and counter-referrals for high-complexity health services. **Purpose:** To analyze the flow of patients of a high-complexity SLH service in Brazil's Unified Health System (*Sistema Único de Saúde – SUS*). **Methods:** Descriptive study, made at a Speech, language and hearing (SLH) service of a high complexity hospital. Participants were 373 users who underwent SLH screening (consultation of health records). The variables analyzed were: social-demographic profile; SLH profile; origin of referral of users; time between referral and screening being carried out; referrals after screening (counter-referral); time between conclusion of screening and first SLH consultation in the counter-referred service; and degree of satisfaction with the SLH consultation of the counter-referral. **Results:** The largest group was the age range zero to 11 years 11 months, male, resident in the city of São Paulo, who had not completed primary education. The most prevalent initial diagnosis in SLH terms was dysphonia. The majority of users were referred to tertiary care. The average waiting time for screening was 56.6 days. Just over half the subjects were referred for tertiary care. The waiting time for care was longest at the secondary level. The majority of users stated their degree of satisfaction with the care to be excellent or good. **Conclusion:** A high degree of resolutiveness was observed in the tertiary care service analyzed; and a need was observed in secondary and primary care for reorganization of the systems of referral and counter-referral.

Keywords: Brazilian Unified Health System; Hospitals, public; Referral and consultations; Patient satisfaction

RESUMO

Introdução: Conhecer o fluxo de referência e contrarreferência de serviços de saúde de alta complexidade é imprescindível para o aperfeiçoamento da assistência fonoaudiológica. **Objetivo:** Analisar o fluxo de pacientes de um serviço de Fonoaudiologia de alta complexidade no Sistema Único de Saúde (SUS). **Métodos:** Estudo descritivo, realizado em serviço de Fonoaudiologia de hospital de alta complexidade. Foram analisados os dados de 373 usuários submetidos à triagem fonoaudiológica (consulta a prontuários). As variáveis analisadas foram: perfil sociodemográfico e fonoaudiológico; origem dos usuários (referência); tempo entre a referência e a realização da triagem; encaminhamentos após a triagem (contrarreferência); tempo entre a conclusão da triagem e o primeiro atendimento fonoaudiológico no serviço de contrarreferência; grau de satisfação com o atendimento fonoaudiológico de contrarreferência. **Resultados:** Predominaram indivíduos com idades entre 0 e 11 anos e 11 meses, do gênero masculino, residentes na cidade de São Paulo, com ensino fundamental incompleto. A hipótese diagnóstica fonoaudiológica de disфония foi a mais prevalente. A maioria dos usuários foi referenciada pela atenção terciária. A média de tempo de espera para a triagem foi de 56,6 dias (intervalo predominante de 51 a 60 dias). Pouco mais da metade dos sujeitos foi encaminhada para o nível terciário. O tempo de espera pelo atendimento foi maior no nível secundário. A maioria dos usuários referiu como excelente ou bom o grau de satisfação com o atendimento. **Conclusão:** Observou-se alto grau de resolutividade no serviço analisado (atenção terciária) e necessidade de reorganização dos sistemas de referência e contrarreferência na atenção secundária e primária.

Palavras-chave: Sistema Único de Saúde; Hospitais Públicos; Encaminhamento e Consulta; Satisfação do Paciente

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INTRODUCTION

In the process of organization of Brazil's Unified Health System (SUS), the distribution of services through the regionalized networks and the hierarchy of care become essential factors for improving accessibility, enabling users to have the necessary access to care.⁽¹⁾ The fundamental component in the integration of the levels of healthcare is an effective system of referral (origin) and counter-referral between the services, taking into account their different levels of complexity.^(2,3,4)

It is desirable both at the level of practice and at the level of theoretical reflection that the logic of a specific technical need for each user, in appropriate spaces and on appropriate occasions, in articulated processes of referral and counter-referral, should be reorganized, both in the training and also in the activities of the various health professionals, including the Speech, Language and Hearing (SLH) specialist.⁽⁷⁾

As to the distribution of SLH specialists in public establishments in the various regions of Brazil, it is found that they tend to be concentrated in Health Centers and Basic Healthcare Units, specialized clinics and out-patient centers, and general hospitals, with a homogeneous distribution in the sectors of secondary and tertiary care.^(8,9,10) However, in the city of São Paulo, their greatest concentration is in services of high complexity, in which the objective is to redirect the affected patient in terms of their functional position in society, through practices of rehabilitation,⁽⁸⁾ and 50% of the specialized hospitals, and 43.8% of the general hospitals have an SLH specialist in their health team. By contrast, only 26.5% of the Health Centers/Primary Healthcare Units, and 18.7% of Health Posts have a practitioner of this specialty on their staff.⁽¹¹⁾

According to the proposal of the SUS, high complexity healthcare would be needed for between 15% and 20% of users' demand. However, as a result of the hegemonic thinking of the health actors (users, professionals and managers), the solution for problems in this area is centralized in large technological centers.⁽⁵⁾ A national study characterizing the social-demographic profile and the flow of referral and counter-referral of a high complexity hospital showed that the insufficient number of SLH specialists included in the services of the users' origins/cities and the inefficient organization of the flow, in the levels of care, resulted in very high waiting times for appointments.⁽¹²⁾ This reality, added to the de-articulation of the process of referral and counter-referral, makes it clear that there is a need for review of the integrality and regionalized and hierarchical structure of healthcare, to achieve the SUS that is desirable.^(13,14)

An efficient system of counter-referral will possibly have an adverse effect on the process for the user, in terms of the care that the user needs from the SUS healthcare system. It also hinders longitudinal evaluation of the user, tends to prejudice

proper adhesion to the treatment, and increases spending on care, since it creates unnecessary referrals and repetition of treatments already carried out, as well as wasting time, which can be crucial to recovery in certain pathologies.⁽¹⁵⁾

Difficulties such as shortage of supply of health services or long waiting times for care are important reasons why users of the public health system desist, and as a result continue to have a variety of health programs.^(15,16) As a counterpart to this, users' quality of life can increase if the healthcare given is satisfactory, since this may result in better adhesion to the treatment, and constant use of the health services by these individuals.⁽¹⁶⁾

As a result, it is concluded that it is vital to have the facts on flows of referrals and counter-referrals of high complexity services, and also who the users are, their needs and their degree of satisfaction with the services, as part of the summation of efforts for enhancing and improving SLH healthcare service of a high-complexity unit. Within SLH care, this subject, though important, has been little studied.

The aim of this study was to observe and establish the flow of referral and counter-referral of users served in an SLH out-patient screening unit of a high complexity SLH service in the SUS, and investigate users' degree of satisfaction with the counter-referral services.

METHODS

This study was approved by the Ethics Committee of the *Hospital das Clínicas* of São Paulo University Medical School (HCFMUSP) (case number 67423/2012). All the participants signed the Informed Consent Form, shortly after application of the SLH care screening procedure. When patients were 18 years old or less, the Form was signed by the parents and/or persons responsible.

A descriptive, retrospective study was carried out in which the data of all the users attended by the SLH Out-patient Screening Center of the SLH Division of the HCFMUSP were analyzed. HCFMUSP is a teaching hospital, in São Paulo city, which is the largest healthcare complex in Latin America. It is a referral center for the Unified Health System (SUS) network of São Paulo state, for diagnosis and treatment of high complexity illnesses.

The SLH Out-patient Screening Center at HCFMUSP aims to identify the patient's complaint, risk of SLH disorders, and disorders already occurring, and make the relevant referrals either to SLH care or to other areas of care. Specific orientations are also provided in accordance with each patient's needs. Third-year undergraduate students in SLH care operate in the Center, carrying out the screening, supervised by SLH specialists with master's degrees or doctorates and a responsible professor, who take part in all the steps involved in the care given. The care given in the other out-patient units of the service, to which counter-referrals from the screening patients are made, are carried out either by the SLH specialists of the

service, with the participation of undergraduate and/or post-graduate students, or by undergraduate and/or post-graduate SLH specialists, also supervised by specialists in the same discipline with either master's degrees or doctorates and by a responsible university teacher. The principal demand at this out-patient unit is from users referred from the out-patient units of ear nose and throat care, and neurology, of HCFMUSP.

The subjects of the study were all the users served in the said out-patient unit, in the period from January 2011 through March 2013. No criteria were established for exclusion from the group studied.

The SLH screening used a specific protocol developed in the SLH graduation course of FMUSP. It includes an anamnesis, recording the factors: age, gender, race, level of schooling, professional, professional, languages used, family income, and health conditions (general, dental and mental). It also contains specific questions of the SLH area (audiology, fluency, orofacial myology, voice, phonology, vocabulary and pragmatics), with two possible answers (“yes” or “no”). Application of this protocol takes about 30 minutes. The answers are classified according to what is expected for development in each age range (into the categories “adequate”, “inadequate”, and “impaired”), and counted. After analysis of the data, an SLH initial diagnosis is decided, and the related conduct.

The initial diagnostic hypothesis established at the conclusion of the screening do not represent an SLH final diagnosis, since this is only possible through a complete SLH evaluation. They are, however, decided based on the clinical reasoning of the healthcare professional for the classification of risks of disorder, or already existing disorders, according to the data presented during the screening, and also for decision on the type of service to which each patient should be referred for diagnostic evaluation and care. This reasoning follows the logic of the hypothetical-deductive method for taking of decisions, which is very much used in the health sciences,^(17,18) and obeys the scope of procedures specified by the Brazilian Federal Speech-Language and Hearing Council for carrying out of SLH consultation and screening.⁽¹⁹⁾

As well as decision on the diagnostic hypothesis diagnosis, the referrals made were classified by level of healthcare to which the counter-referrals were made. Also the initial diagnoses were grouped by area of specialty within SLH care to which they belonged (language, audiology, voice, orofacial myology, dysphagia, educational SLH aspects, and others when the outcome information was not available) for analysis of their occurrences in the service under study.

For this study, data for SLH screening for the following variables were used:

- **Social-demographic profile of the population:** Age (in the ranges: zero to 2 years 11 months, 3 years to 5 years 11 months; 6 to 12 years; 13 to 17, 18 to 59; and over 60); gender (male, female); city of residence (São Paulo, or other); and degree of schooling (kindergarten, primary,

secondary, higher, postgraduate, special education, illiterate or no schooling).

- **SLH profile:** diagnostic hypothesis adopted after the screening. In some cases there was more than one initial diagnosis following completion of screening, depending on the disorders found in the process.
- **Referral system:**
 - Identification of the patient's origin service – classified as tertiary care service (internal to the HCFMUSP), or primary or secondary service (external to the HCFMUSP). This identification was made at the moment of the patient's screening, when the patient presented the referral paper to the SLH Screening Outpatient Unit.
 - Waiting time for a consultation in the screening out-patient unit: Interval (in days) between the date of referral and the date of service at the HCFMUSP screening out-patient unit. The data were obtained from the scheduling system of the HCFMUSP, using the hospital registry number for each subject.
- **Counter-referral system:** Record of the place of treatment/consultation to which the patient was referred, classified as tertiary care (for those internal to HCFMUSP) or primary or secondary care (for those external to HCFMUSP). Note that there was the possibility of a patient receiving more than one referral per specialty (both in SLH, and also in other health specialty areas), including both the services of HCFMUSP and other services of the SUS network, to widen the chances of faster care within the level of complexity relating to each initial diagnosis. As well as the data obtained from the SLH screening and from the HCFMUSP's appointments system, data from interviews held by telephone (six months after completion of the screening) were collected from the users' medical records, to check additional information related to the counter-referral system. The script with the questions in these interviews is in Appendix 1.

Based on the records of the results of the telephone interviews, it was possible to collect the following data:

 - **Number of patients that succeeded in having the indicated care after conclusion of the screening.**
 - **Waiting time for SLH consultation or care in the counter-referral service:** Interval (in days) between the date of conclusion of the screening and the first SLH consultation or care in the service to which the patient was referred.
 - **Users' degree of satisfaction with the consultation/care received in the counter-referred service:** For patients that succeeded in receiving the SLH consultation or care in the services to which they were referred after the screening, their degree of satisfaction with the service in the counter-referral unit was obtained (in accordance with the level of healthcare of the service). The categories set for classification of the degree of users' satisfaction were: Satisfied, and unsatisfied.

The data were analyzed quantitatively, through descriptive and inferential statistics, the Student t-test being used to verify whether the most prevalent occurrence was the most significant for the population studied, for each one of the variables studied. The confidence interval adopted was 95%. The data on schooling were analyzed within each one of the selected age ranges, for characterization of the population studied.

RESULTS

Social-demographic and SLH profile of the population

In this study, data were analyzed for all patients attended in the SLH Out-patient Screening unit of the HCFMUSP between January 2011 and March 2013, a total of 373 subjects. The majority were male (52%), but the difference between the genders was not statistically significant ($p=0.136$). The majority were resident in the city São Paulo (70.2%; $p<0.001$).

There was a heterogeneous age range distribution, with predominance of children from birth to 11 years 11 months ($p<0.0001$). The highest concentration was of children between ages 3 and 5 years 11 months (Table 1). The majority of the subjects had not completed primary education ($p<0.0001$) (Table 1).

For the most frequent initial diagnosis after conclusion of the screening, one needs to take into account that one patient might receive more than one initial diagnosis. The majority (69.7%) received only one initial diagnosis, with 29.8%

receiving more than one – a statistically significant difference ($p<0.0001$). The initial diagnoses of two subjects (0.5%) were not found. The most prevalent single initial diagnosis was dysphonia (23.8%; $p<0.0006$). However, it is important to point out that there was a high occurrence of speech and language acquisition and development disorders in various areas, which accounted for an aggregate 31.8% of the sample (Table 2).

Referral system

In the distribution of users across the levels of care, 87.7% were referred to tertiary care, that is to say clinics of the HCFMUSP, this figure being statistically significant ($p<0.0001$).

In relation to the interval (in days) between the day of referral and the day of consultation or care in the SLH screening out-patient unit of the HCFMUSP, the average waiting time was 56.6 days ($DP=34.6$); the predominant interval was 51 to 60 days ($p<0.0001$).

Counter-referral system

After the screening, 233 internal referrals were made (62.5%), 173 external (46.4%) and one patient was dispensed from treatment (0.3%) ($p<0.0004$). The majority were referred to tertiary care, 51.7%, to SLH out-patient units of HCFMUSP – this was statistically significant ($p<0.02$) – while 43.4% were referred to secondary care services external to HCFMUSP, and 10.2% to external primary care services. The health records of

Table 1. Schooling and age profile of the subjects of the study.

	Birth to 11 years 11 months*	Age 12 to 17 years 11 months	18 to 59	>60	Total
n	186*	34	113	40	373
%	52,0	7.0	30.3	10.7	100
NF	20%	3%	0%	0%	10%
EI	27%	0%	0%	0%	20%
EFI	38%	55%	24%	24%	30%
EFC	0%	3%	12%	24%	4%
EMI	0%	6%	3%	3%	10%
EMC	0%	8%	29%	23%	5%
ESI	0%	0%	4%	3%	6%
ESC	0%	0%	19%	8%	1%
PGI	0%	0%	0%	0%	0%
PGC	0%	0%	1%	0%	1%
EE	3%	8%	2%	0%	2%
A	0%	0%	0%	10%	1%
S/I	12%	17%	6%	5%	10%

* Student t-test, confidence interval 95% ($p<0.001$)

Key: n = number of subjects; NF = did not attend school; EI = kindergarten; EFI = primary incomplete; EFC = primary complete EMI = secondary incomplete; EMC = secondary complete; ESI = higher education incomplete; ESC = higher education complete; PGI = post-graduation incomplete; PGC = post-graduation complete; EE = special education; A = illiterate; S/I = no information.

Table 2. Distribution of initial SLH diagnoses stated after conclusion of the SLH screening.

Initial diagnosis, by subject area	n	%
Language		
Phonological disorder	49	13.1
Language acquisition or development disorder	77	20.6
Disorder in acquisition and/or development of language in syndrome	19	5.1
Disorder in language acquisition and/or development in autism spectrum	5	1.3
Disorder in language acquisition and/or development in neurological disorders	15	4.0
Reading / writing acquisition or development disorder	24	6.4
Disorder in acquisition and/or development of language in a cognitive deficit	3	0.8
Aphasia	5	1.3
Dysarthria	8	2.1
Stuttering	22	5.9
Motor Speech disorders	3	0.8
Total – Language	227	60.6
Hearing		
Hearing quality disorder	41	11.0
Tinnitus	3	0.8
Central auditive processing disorder	2	0.5
Vestibular system disorders	3	0.8
Total – Hearing	49	13.1
Voice		
Dysphonia*	88	23.8
Total – Voice	88	23.8
Orofacial Myology		
Orofacial myofunctional system disorders	58	15.5
Cleft lip and/or palate	7	1.9
Temporo-mandibular disorder	4	1.1
Facial paralysis	14	3.8
Orofacial myofunctional system disorders in cases of OSAS	8	2.1
Orofacial myofunctional system disorders resulting from burns	1	0.3
Total – Orofacial motricity	92	24.7
Dysphagia		
Dysphagia	35	9.4
Total – Dysphagia	35	9.4
Education-related		
Unspecified learning difficulty	7	1.9
Total – Education-related	7	1.9
Others		
No information	2	0.5
Total – others	2	0.5
Overall total	503	132.1

* Student t-test, confidence until 95% (p=0.0006)

Key: OSAS = Obstructive sleep apnea syndrome.

two subjects (0.5%) had no information on counter-referral.

Waiting time: It was possible to obtain information on 165 subjects (44.23%) in relation to the waiting time between referral after conclusion of the screening and initial consultation/care. For the rest, telephone contact turned out not to be possible and as a result there was no record of the information in the medical records. Of the 165 patients, 119

(72%) were referred to tertiary level of care (internal referral within HCFMUSP), 40 (24.24%) to the secondary level, and 6 (3.36%) to the primary level.

The waiting time to first consultation/care was lowest for those receiving referral to the primary level (Table 3), but this difference was not statistically significant, compared to the waiting time for attendance at tertiary level (Table 4). The

healthcare level with the highest waiting time for SLH care was the secondary area, when compared to the tertiary and primary levels (Table 4).

Table 3. Descriptive statistics for the waiting time for SLH care in the counter-referral service after conclusion of the screening

	Average (days)	Standard Deviation	Median	Minimum	Maximum
Tertiary	52	30	62	2	270
Secondary	157	90	154.3	7	575
Primary	36	22,8	38	6	60

Table 4. Comparison between waiting time for SLH care in the counter-referral service, by healthcare level to which patient was referred after screening

	Secondary	Primary
Tertiary	<0.0001*	0,08
Primary	<0.0001*	-----

*Student t=–test, confidence until 95%

Users' degree of satisfaction with care received in the counter-referred service

Of the 165 subjects whose medical records contained information on the telephone interviews monitoring the counter-referral, data on degree of satisfaction with the SLH care received in the counter-referral services were recorded for 84 of them. Of these, 51 had been referred to tertiary level service (within HCFMUSP), 26 to secondary level services and 7 to primary level services. The complete results are in Table 5.

Table 5. Comparison between users' degree of satisfaction, by level of healthcare of the services to which users were referred after conclusion of screening

	Primary	Secondary	Tertiary
Satisfied	71.4%	92.3%	98%
Not satisfied	28.6%	7.7%	2%
p value	0.06	<0.001*	<0.001*

*Student t=–test, confidence until 95%

DISCUSSION

This study delineated the social-demographic and SLH profile of the population attended from January 2001 through March 2013 at the SLH out-patient screening unit of the SLH Division of HCFMUSP, and the flows of referral and counter-referral of that service were characterized. The results in terms of gender and level of schooling showed the majority to be male, with mainly primary schooling incomplete, especially for the infant and teenage population, which is expected for these age ranges.^(12,20,21,22) Of the adults, the predominant group had completed secondary education, and among the

elderly, incomplete and complete primary schooling were also predominant, confirming results of a previous study.⁽²³⁾

Among the age ranges, children were predominant with a statistically significant difference, and the highest concentration in the age ranges 3 to 5 years 11 months. These data agree with the studies previously mentioned,^(12,20,21) which report the highest concentration of patients with SLH complaints in the age ranges up to 5 years 11 months. It is important to note, however, that disorders in communication can affect individuals in all the stages of the lifecycle, which possibly justifies the heterogeneity in relation to the minimum and maximum age groups for the subjects of this study.⁽²¹⁾ Also, the majority of them were residents of São Paulo city, where the service being analyzed is located.

The number of subjects with only one initial diagnosis after screening comprised the largest group. Dysphonia was the most frequently identified initial diagnosis, with a statistically significant difference in relation to the other initial diagnoses. A prior study has shown a similar result, in which 34.8% of the users at a high-complexity SLH service had voice complaints.⁽²³⁾ However, there was a large occurrence of speech and language acquisition and development disorders in children, both in isolation and associated with various health conditions which when added together were the most prevalent group of the sample. These figures confirm those of other studies which have shown that among SLH disorders, those related to speech and language development disorders have been the most prevalent.^(12,20,21,22)

Within the referral system, the great majority of subjects were referred from the tertiary level of healthcare, this difference being statistically significant when compared to the number referred from the other levels of healthcare, and from education services. This is an expected figure, since the out-patient unit was located within a high complexity hospital in which the greater part of subjects are referred from medical clinics of the hospital itself, where specialized treatments are carried out for health issues belonging to the tertiary level of healthcare. Further, the service that is the subject of the study is located in São Paulo city, where there is a high number of SLH specialists within the SUS healthcare network, allocated in high complexity services.^(11,24)

In the counter-referral system, the greater part of the subjects attended in the SLH screening service, within high complexity, was counter-referred to the same level of healthcare. This information shows a high degree of resolutiveness of SLH issues within the service under study. Since the demand for care at this level was higher in the population studied and the demand for care at the other levels of healthcare, the higher occurrence of course counter-referral to the tertiary level was relevant. It is, though, important to note that a large part of the subjects received referral to secondary and primary care services. This shows that there is still a considerable number of subjects who could have had their SLH health issues resolved at these levels

of healthcare, but who are referred, first, to the tertiary level. These data are in line with previous studies, which dealt with the difficulty of integrality in the healthcare services networks of the SUS.^(4,13,14) Further, it is necessary to consider that the majority of the subjects lived in the city of São Paulo, in which most of the SLH specialists are concentrated in hospitals, especially those of high complexity, as mentioned above.⁽¹¹⁾

The difficulty of articulation between the various points of the healthcare network contributes to the occurrence of practices of withdrawal of responsibility and negation of the population's right to health, supporting maintenance of the model centered on the isolation of specialties.⁽¹⁵⁾ Many cases are still referred to high complexity, when they should be referred to the other levels of healthcare, and this in our view evidences an imbalance between demand and the health system capacity to provide care, since the number of SLH specialists is usually lower than the demand referred to this level of healthcare.⁽²⁵⁾

In this study, the average waiting time for SLH care after conclusion of the SLH screening was greater within the secondary level of healthcare, with a statistically significant difference from the waiting time in the other levels of care. This is an important item of data to be considered for improvement of the healthcare service within this level, since the shortage of available appointments, or long waiting times, for care are important reasons why users of the public health system desist from the care that they need⁽¹⁵⁾ and continue to have health problems.

In a previous study, in a primary care teaching clinic it was found that the average waiting time for SLH consultation/care was 7.04 months⁽²⁰⁾. In the present study there was no difference in waiting time for SLH care between the primary and tertiary levels. On the other hand, it is important to consider that the number of subjects referred to the tertiary level was much higher than those referred to the primary level and that they succeeded in obtaining the consultation/care so that the resolutiveness of the counter-referral system of the third level can be considered to be the highest, for the service in question.

The promotion of integrated and intersectorial activity within the health services, and the planning of care, in accordance with the levels of healthcare, have been increasingly urgent, but still distant from the reality of the majority of the services in the SUS.⁽²⁴⁾ The healthcare network is fragmented, since the professionals of the primary level of healthcare have little or no coordination/articulation with those that operate at the secondary and tertiary level even though it is foreseen in the SUS directives/guidelines that the primary healthcare network should be the source of organization of care.⁽²⁶⁾

Another important factor in this discussion is the promotion of teamwork, since the integrality of care is not dealt with in the academic (undergraduate) training of most of the professionals. This type of learning is obtained late – i.e. during actual clinical practice,⁽⁷⁾ retarding the promotion of this type of care. Thus, engaging students of the health profession – in this case, SLH

care, in participation in, experience of, humanization of and reflection on the reality of the processes of referral and counter-referral of the SUS is a way of getting them closer to the reality and favoring a work organization that has articulation/coordination between the levels of care, and the population, in the future.^(23,27,28,29) However, these initiatives have to face the challenge of a hegemonic structure of overvaluing specialization, centered on services that concentration high-technology equipment, still predominant in society, which orients the training of many professionals.^(4,24)

Finally, based on the analysis of the degree of satisfaction of those users that succeeded in obtaining SLH consultation/healthcare, the greatest percentage of assessment of the services was “excellent”, for those referred to secondary care services, followed by those referred to tertiary services, and “good” for tertiary services, followed by secondary services. However, it needs to be taken into account that the number of subjects evaluated for this variable and referred to the tertiary level was much higher than the number of subjects referred to the other care levels, which suggests that the degree of satisfaction could have been proportionately greater for those attended in the SLH outpatient units within the service under study, according to the results presented. The results of this present study have shown agreement with the results of a previous study, in which subjects expressed positive opinions on satisfaction with the SLH care overall, either because they succeeded in getting the necessary care, or because they identified satisfactory results during the treatment.⁽²⁴⁾ The users' satisfaction with health services may intensify their adhesion to the treatments prescribed, and continuation of use of these services.⁽¹⁶⁾

One of the limitations of this study is in the monitoring of the counter-referral network for analysis of users' satisfaction with the services to which they were referred, after the screening. It was very difficult to contact the subjects, and it has not been possible to analyze all the cases that received care, especially those that were referred to counter-referral services of primary healthcare level, and this could have adversely affected the analysis of the users' satisfaction for these services. However, it needs to be remembered that the overall number of referrals made to the primary level of care, after conclusion of the screening, was already lower than for those referred to the other levels.

We also point out that the data presented in this study refer to a specific high-complexity service, which limits the generalization of the data to all services of the same level of care, taking into account the differences in the referral and counter-referral system of each of the Brazilian municipalities and regions.

CONCLUSION

This study indicates a high degree of resolutiveness of a Speech, Language and Hearing (SLH) service within tertiary

level healthcare, in relation to the orientation and service to users with SLH complaints and disorders identified following the screening. Further, it was possible to observe that there are still failures in the flow of referral within the healthcare network related to the service under study.

Thus, it is understood that the existence of an out-patient SLH screening unit within a high complexity service is necessary, today, to achieve the most appropriate referral for each user, both to the tertiary level of service and also to services of the other levels. This type of service thus assumes an important role within the network in the present health scenario in the city of São Paulo, in which the role of specifier of care is not always able to be supplied by the primary level of healthcare. It is thus concluded that the referral and counter-referral systems still need to overcome a great obstacle in relation to the insufficient supply of SLH services in the healthcare network, to achieve greater effectiveness in referrals and care for the user.

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Appendix 1. Script for interview to monitor the counter-referral system of the SLH screening out-patient unit do the medical faculty of the *Hospital das Clínicas* of USP (HCFMUSP)

1. Ask the patient whether they succeeded in receiving SLH care/consultation in the service to which they were referred after conclusion of the SLH screening.
2. If the answer is yes, ask the date of the first care/consultation in the counter-referral service.
3. As the patient what was their degree of satisfaction in relation to the SLH care received, the answer being one of the following:
() excellent () good () regular () not very satisfied () not satisfied

ERRATUM

In the article **Effectiveness of referral and counter-referral systems in a high-complexity Speech, Language and Hearing healthcare service in the city of São Paulo**, DOI number: <http://dx.doi.org/10.1590/2317-6431-2017-1859>, published in journal *Audiology - Communication Research*, 23:e1859, page 1:

Where it reads:

“Daniela Regina Molini-Avejonas¹, Thaís Helena Ferreira Santos¹, Sandra Rodrigues de Oliveira¹, Silmara Rondon-Melo¹”

It should read:

“Daniela Regina Molini-Avejonas¹, Thaís Helena Ferreira Santos¹, Sandra Rodrigues de Oliveira¹, Silmara Rondon-Melo¹, Fernanda Parsequian Cartolano¹”