

Original Article

Laryngectomized Users of Tracheoesophageal Prosthesis: Principles and Methods of Speech-Language Pathology Practice

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Abstract

Objective: To analyze the current principles and methods in speech-language pathology (SLP) therapy of total laryngectomized patients who are users of tracheoesophageal prosthesis from the point of view of speech-language pathologists, head and neck surgeons and patients. **Methods:** The participants of the research were three speech-language pathologists (GP), three head and neck medical surgeons (GS) and three tracheoesophageal prosthesis users (GU). The speech-language pathologists responded to an interview containing one question of open-ended character on their experience in the rehabilitation of these patients. Starting from the reading of the collected material, a questionnaire was elaborated for GS on their expectations as to the SLP therapeutic process and another for GU about specific techniques, expectations and recollections of the SLP therapy process. After the reading of the material, associative idea maps were elaborated. In that way, analysis was carried out individually for each group. In a second round, responses of the interviewees of the three groups were compared among themselves with base in elaborated categories. **Results:** The performance in the preoperative period consists of orientations concerning the surgery and their implications and on the available alternative methods of communication. After the surgery, SLP therapy consists predominantly of specific techniques for occlusion of the stoma, coordination between expiration and phonation, speech fluency, maximum phonatory time and vocal variations of height and intensity. **Conclusion:** It is observed that the function of the speech-language pathologist is to propitiate the patient a mastery of the prosthesis through expression and autonomy in caring for the same. In that way, the improvement of the quality of life, by reintegration into society, becomes the main performance objective with laryngectomized patients.

Keywords: Voice; Cancer; Rehabilitation; Tracheoesophageal prosthesis

Introduction

The larynx is an organ with multiple functions. It acts as sphincter and has an important role in the processes of breathing and deglutition. In addition, it is the responsible structure for human vocal production. Thus, laryngeal alterations can cause difficulties of the most varied nature, mainly those related to breathing, feeding and expression. Cancer is one of the most serious diseases to strike the larynx. Depending on staging, it can have aggressive treatment and its occurrence can be mutilative and lead to physical and emotional fragility. Advanced tumors, in most cases, request a total laryngectomy; a surgery in which the whole laryngeal outline and related structures are removed by a surgeon. Thus, the trachea is bent anteriorly and sutured to the neck, creating a

permanent tracheostoma, through where the patient will start to breathe. Besides countless current complications, for instance, the separation of the breathing and digestive treatments, the subject loses the laryngeal voice and should find, among existent options, a convenient form of vocal rehabilitation.¹⁻²

The tracheoesophageal prosthesis (PTE) is a modern form of alaryngeal voice production. It is the rehabilitation form most used in first-world countries and its use has been progressively increasing in our country, although, still with high cost and the presence of practical inconveniences, such as constant changes and demand of

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impeccable hygiene.

In consultation to studies published recently in the area, it is observed that a large part of those stop in the description of the tracheoesophageal voice in comparison with the voice that results from other methods of total post-laryngectomy rehabilitation in the quality of life measure of the users and in the detection and solution of problems deriving from PTE adaptation.³⁻⁸

Accordingly, interest has grown in studying the practices that have been achieved by speech-language pathology (SLP) with prosthesis users and the principles that guide them. By practice or method, the form for which the principle is believed, internalized, materialized and utilized will be understood by this work.⁹ To best understand the dimensions of these principles and methods, and for understanding that interdisciplinary dialogue is the base of successful rehabilitation, we opted to listen, in the form of open and partially-directed interviews, to the reports of speech-language pathologists, surgeons and the own prosthesis users and their recollections concerning the therapeutic SLP process.

Objective

To analyze the current principles and methods in SLP therapy of total laryngectomized patients who are tracheoesophageal prosthesis users from the point of view of patients, speech-language pathologists, otorrinolaringologists and head and neck surgeons.

Method

This research, of qualitative and descriptive character, was approved by the Ethics Commission of the Post-Graduate Studies Program in SLP of Pontificia Universidade Catolica de Sao Paulo under number 0024/2005.

The subjects of this study are speech-language pathologists, head and neck medical surgeons and tracheoesophageal prosthesis users. The participants were divided into three groups, respectively, speech-language pathologists (GP), medical surgeons (GS) and users (GU).

GP

The subjects of this group were three speech-language pathologists (P1, P2, P3), with professional

experience in the area of vocal rehabilitation of laryngectomized patients who are tracheoesophageal prosthesis users, that work in hospitals or in private clinics in the state of Sao Paulo.

To conduct this research, three speech-language pathologists were interviewed that fulfilled the research inclusion criterion. The selection of those participants was made in network form. As such, each participant indicated the names of colleagues practicing in the area. A two-year academic background minimum was established as an inclusion criterion as a reasonable time to acquire experience. All the components of GP possess professional experience and academic output regarding the treatment of laryngectomized patients.

A pilot interview was conducted in order to validate the question introduced to the interviewees and to evaluate the interviewer's performance.

The speech-language pathologists responded to a free and open-ended interview of descriptive character on the work done by them with users of PTE. In order to best understand how the professional practice occurs, the researcher asked a single question to the interviewees based on the dissertation of Cancian.¹⁰ The same were requested to describe in full detail the therapeutic process of any patient user of tracheoesophageal prosthesis treated by them that they considered a success. Emphasis was given that to be considered a "success", the treatment that the therapist judges has had the opportunity to put into practice everything that is believed to be important and pertinent in the performance with those patients, and if it is the case or not, received discharge.

The interviews were transcribed and submitted to categorization by data analysis. The participants were denominated randomly as P1, P2 and P3.

The three members of GP possess a minimum of 9 years and maximum of 18 years of academic background. The minimum academic title is Master's and the maximum is Doctor.

GS

The subjects of this group were three otorrinolaringologic doctors and head and neck surgeons (S1, S2, S3), with professional experience and academic output concerning the treatment of patients submitted to total laryngectomies who are tracheoesophageal prosthesis users. The members of the group possess at minimum 16 years and at maximum 33 years of academic background. The minimum academic title is Doctor and the maximum is Faculty Professor. The option was made at this time

to choose representatives of three centers of reference in laryngectomized patient treatment of the city of São Paulo for interviews.

The surgeons responded to an open interview, semi-directed, that dealt with their expectations for SLP treatment to the patients in question and on what they consider success in a therapeutic process of that nature. The questions for the members of this group were elaborated starting from the reading of the transcriptions and the emergence of possible categories deriving from the comments of the members of GP.

GU

This group was composed of three total laryngectomized subjects (U1, U2, U3), users of tracheoesophageal prosthesis for primary or secondary placement. The minimum time of use of the prosthesis to be included in this study was one year for minimization of eventual adaptation problems. The users should have completed SLP therapy in a hospital, clinic or private practice but would have had to complete their therapeutic process at the time of the interview. The selection of the subjects was made through network form, with interviewee suitability meeting the criteria inclusion of the group.

The subjects answered an open-ended, semi-directed interview that dealt with their expectations and recollections of the SLP therapeutic process. As was explained previously, the questions responded by the subjects of this group were elaborated starting from the reading of the transcriptions and the emergence of possible categories deriving from the comments of the members of GP.

The characteristics of those subjects were:

- U1 had secondary PTE placement and had been a user for seven years;
- U2 had secondary PTE placement and had been a user for two years and seven months;
- U3 had primary PTE placement and had been a user for 12 months.

Data Registration and Analysis

Starting from the presupposition that speech, for being a social activity, carries more than the content itself, the interviewees' comments was analyzed by the approach of discursive practices and production of feelings,¹¹ which permits the analysis of speech inserted in its historical and social context.

After the transcription of the interviews, successive readings of all collected material were done. In a second round, during the reading of the interviews of each group, aspects of the speech that stood out in the context of the interview were highlighted. Starting from the passages in prominence, categories were chosen for each group separately, keeping in mind the objectives of the research; in other words, an analysis of the principles and methods involved in the SLP rehabilitation in patient users of PTE was made. Consequently, associative idea maps were elaborated, according to the orientations of Spink.¹¹ The associative idea maps constitute a methodological procedure that allows the measured analysis of interview content as it preserves the dialogue context of the comments, as the dialogue is maintained in its integrality, organized in columns respecting the linkage of ideas and interaction.

Thus, the integral transcriptions of the selected interviews were allocated in different columns, assisting to the content of each category and obeying the sequence of comments of the interviewee. The researcher's interventions were put in categories corresponding to the same form.

Table 1 demonstrates the derived categories of the interviews with the subject of this study. The categories in bold represent those that would best supply contributions for the discussion of the theme approached in the research. Of note, although chosen for analysis were those categories that best allow for a discussion of the research objective, the whole content of the interviewees' comments was taken into account as the sequence of comments of each denoted subject is fundamental in the maintenance of the dialogue context of the interviews.

With the intention of analyzing the contributions of each group concerning the principles and methods of SLP practice with patient users of PTE, the analysis was conducted separately by groups. In a second round, the results of the GP, GS and GU analyses were synthesized and discussed with base in the found literature.

Results and Discussion

The following data regarding each group (GP, GS and GU) will be presented separately. At the end, a synthesis will be found of what was taken in each group, with the purpose of drawing a panorama of the principles and methods that guide SLP practice in the treatment to patient users of tracheoesophageal prosthesis, under the view of the three interviewed groups.

Table 1 – Categories derived from the analysis of interviews of the subjects the three studied groups: Speech-language pathologists (GP); Medical surgeons (GS) and Tracheoesophageal prosthesis users (GU)

GP	GS	GU
Repertoires (terms, expressions, etc.) used to describe the clinical history of the patient	Reports of problems or complications in the therapeutic process	Expectations as to prosthesis fitting
Qualification of the disease	What is considered a therapeutic success	Evaluation of initial expectations
Procedures adopted in rehabilitation	Expectations as to the therapeutic process	Recollections of the SLP therapy process
Evaluation of the procedures adopted	Adopted medical procedures	Results of SLP therapy procedures
Results of intervention	How to relate SLP therapy procedures	Recollections of medical procedures
Patient reaction of procedure	Evaluation of SLP work	Perspectives for the future
	Patient expectations as to the therapeutic process	Evaluation of the SLP therapeutic process
	Reaction to the patient to adopted procedures	

GP

Most of the procedures adopted in the preoperative period are of a theoretical nature and refer to explanations and schematic presentations of drawings and figures. There was no mention to a SLP preoperative evaluation that allows the professional to know the characteristics of the personality and history of the patient's communication, recounted by same, which can evaluate personal characteristics of the subject's speech such as articulation, regionalisms, fluency, support stereotypes and speech rate, among others.¹²⁻¹³ Starting from the speech clip of P1, it is noted that when evaluating that specific procedure, the importance of the evaluation and SLP orientation in the preoperative period is diminished by the knowledge attributed to the doctor that, according to P1, to have the ability of patience in giving the necessary communication orientations to the patient would make the SLP orientation in that period unnecessary.

As a result, the importance given to the establishment of a bond with the patients and their relatives in that period is also noted¹⁴ and limited to the interviewees once the medical orientation is considered sufficient before the surgery. That moment of orientation is evaluated by them as just informative and not as an opportunity in establishing a bond and trust in the professional that will take care of the communicative rehabilitation of the patient after surgery.

As for the immediate postoperative period, P3 relates that they make contact with the patient in the hospital bed to retake the contact of the preoperative orientation and "to remind" the patient of returning for clinical attendance. Some authors¹⁵ point out that at that moment, some phonatory tests can still be made; however,

they point out that rehabilitation begins after the patient's return, with complete cicatrization.

For all the interviewees, the beginning of the practical part of the rehabilitation is with stoma occlusion training and inspiration and expiration coordination, in agreement with what is proposed in the literature.^{13,15-16} P1 comments that, in the beginning, they conduct patient occlusion and motivates them to produce sustained vowels.¹³ The other interviewees leave occlusion to the responsibility of the patient. Prior to the patient's affliction in occluding the stoma, P1 encourages the use of a silicon ball in place of the finger. The choice of the finger as ideal for tracheostoma occlusion was not detailed by any of the GP subjects. To that respect, P1 comments that the choice of the best position and the use of finger for occlusion are made part of the performance. However, that procedure was not part of the related case; once the patient preferred a silicon ball. There is not a consensus in the literature to that respect, but there are recommendations on occlusion with the pulp of one of the fingers, preferably the thumb of the non-dominant hand.^{13,15} The caliber of occlusion was not mentioned directly by any of the interviewees. The references indicate that the occlusion should be made without a lot of force but that the form with which the patient occludes the tracheostoma is an influential factor in the resulting vocal quality.¹⁷ However, as an extremely vague and subjective parameter, it is believed that the fact that some speech-language pathologists opt to begin rehabilitation occluding the stoma for the patient can aid the user to develop the proprioception of the necessary pressure for ideal phonation.

In the comments of the interviewees, the first emissions of the patients are the prolonged vowels and all begin treatment for the emission of the vowel /a/.

The therapy sessions are orientated in stages that change to be exceeded by the patients. The following stage adopted by them is the emission of monosyllabic words and when getting that emission, the patients speak lists of words of di-, tri-, and polysyllabic, successively. They are made to follow the counting of numbers and train to automatically speak functional sentences. The objective of that work, besides the coordination between occlusion and breathing, is the increase of the maximum phonatory time.^{13,15-16} In that same phase, P2 and P3 mention work of cervical relaxation.¹⁸

Following, work is done with the modulation of pitch and loudness, in that the patients are requested to speak varying height and vocal intensity. Two of the interviewees propose a work that denominate vocal modulation that consists of melodic variation corresponding to exclamatory sentences or interrogatives.^{16,18} There is no reference to therapeutic techniques of expressiveness properly described, and none of the interviewees incorporate work with corporal and/or facial expression¹⁹ or work with prosody, pauses, variation of speech rhythm and others. Those are techniques commonly used by professionals that seek to perfect the overall communication and expression of subjects with laryngeal voice and as such, could be used in the subject's rehabilitation in learning to speak again. The subject that knows the expressive resources has a greater ease in which to turn conscious that, in validity of the laryngeal voice, occurred unconsciously in their speech.

Although it is always cited and present in the comments of the interviewees, as it is noted through the repertoire used in their speech, there is disdain of the work with vocal resources. Although the work with vocal resources still seems to be little emphasized, isolated practices as those that seek to give greater modulation of pitch and loudness are well evaluated by the interviewees.

The work with laryngeal voice expressiveness brings to the surface questions of subjectivity, for this is intimately related to emotions. Likewise, it is possible that the subject has a greater knowledge of their speech and appropriates available resources for a better expression of their intentions. That is what leads to knowledge, as long as the subject is a speaker and bearer of "voice", whatever the quality may be. Who is able to express emotion can be recognized as a speaker and then comes the acceptance of a voice. Thus, it is understood that work with expressive parameters could directly benefit the communication of prosthesis users, as well as act as a catalyst in the construction process of a new corporal-vocal image.¹⁹

It stands out that there are works in the literature that compare laryngeal voice to tracheoesophageal voice and it is concluded that the parameters in both voices, such as modulation of pitch and loudness and maximum phonatory time, among others, are comparable.²⁰⁻²³ That data would give subsidy for the development of work techniques in that sense with such patients.

Regarding the methods used in the service of those patients, there is reference to work with voiced/non-voiced differentiation²⁴ and articulation, without detailing the techniques used to reach such objective. It is inferred from the comments of the interviewees that the work with articulation is not considered as necessary and is not done with all patients, as pointed out by P1 and P2.

In agreement with the literature,¹³ the time for beginning SLP therapy is determined in agreement with the patient's cicatrization and occurs between the seventh and the fifteenth postoperative day. The duration of the therapy varied, in the statements, between six to eight SLP sessions.²⁵ It is noted by the accounts of the speech-language pathologists that the speed with which the rehabilitation occurs is considered one of the great advantages of tracheoesophageal prosthesis adaptation.²⁶

The readiness in getting the first emissions is without a doubt a large differential of PTE in comparison with other means of post-laryngectomy vocal rehabilitation. However, that speed should not be confused with the decrease of rehabilitation time. Studies show that although it is not possible to point directly to the relationship between therapy time and vocal performance, it is only after one year of prosthesis use a tracheoesophageal voice can be considered established.²⁷

It is at that moment that the work is emphasized with the expressiveness discussed previously. That is a work that focuses on communication as a whole, going to the placement encounter of P1, it extrapolates the idea of perfecting, or vocal refinement. Moreover, it feels to the patient as the idea of relationship among body, voice, feeling and expression; increasing the conscience of what was accomplished before surgery automatically, potentiating the resources of PTE that allow greater naturalness in speech, as well as important melodic variations that, although restricted, would be enough for the expressive transmission, associated to facial and corporal expression.^{17,20-22,27-30} When building together with the therapist a new form of communicating, taking into account the possibilities and the limits that the prosthesis offers, the speech demand and the construction

of a new corporal-vocal image will naturally come.

The reason for which the case was a success was also evaluated by the interviewees. For P2, the success was due to the short time of rehabilitation of the patient and the fact they were communicating very well with PTE as a main communication source.³¹ For P3, the success was also linked to the time of rehabilitation.

P3 points to the need to perfect the tracheoesophageal speech acquired through “training” and of a more prolonged period of SLP therapy. Emphasizing that speech “is not as easy as before” is why the patient stays in therapy for a longer time. Studies show that the first three months after the surgery are critical. At first, the patient seems to accept their new condition and consider themselves lucky for having survived and to be with phonation, according to P3, “good for day-to-day use”. However, overcoming their initial difficulties can generate a greater demand and increase expectations, doing what is necessary to approach, with the speech-language pathologist, the possible limits and the acceptance of the same, followed by the conformation and acceptance of a new voice, forming a new corporal-communicative self-image.^{4,32}

The verified particularities of speech by PTE allow the user to be welcomed in the SLP clinic as a subject that has in their unique history the mark of survival to a serious and mutilating disease with a good prognosis of vocal rehabilitation. Thus, vocal therapy, besides working with the complications and current specifics of surgery and adaptation to a vocal prosthesis, should always contemplate the subjective manifestations, in other words, that which the patient brings and in that case is imbedded with feelings. In some ways it is believed that the patient learning esophageal voice in therapy has work in these aspects that is more thoroughly approached, as they stay longer in therapy and develop a more solid bond with the therapist. The work with the prosthesis user should be developed in that sense, preoccupied with in large part today to the coordination aspects, normalization, and vocal quality, in a relatively short time.

That fact can be attributed to a lack of literature on the work with prosthesis users, as part of the articles still seek to characterize tracheoesophageal voice and compare it to other means of laryngectomized vocal rehabilitation.³⁻⁸ It is noted that the therapeutic model for the PTE user in Brazil has base in first-world countries, in that PTE is the principal means of rehabilitation. In those countries, the therapy is paid most of the time by insurance companies that delimit a maximum number of sessions for that end.²⁵⁻²⁶ As a result, the fundamental aspects of vocal quality are ended up prioritized to the

detriment of an approach of the voice thought of as expression, which would demand a greater time and cost, which is out of the reach to Brazilian public health system users. However, it is understood that the practices that approach vocal parameters could be adapted, so that even with a restricted time of rehabilitation, can contemplate the resources of, for instance, melody and stress, through the association of vocal production to the facial and corporal expressions, sense manifestations and intention of speech, consciously using the different pause types, among others, in an individual approach or in group. It is not treated to eliminate the utilized techniques but to take advantage of them in an approach that considers the voice as manifestation of subjectivity.

GS

When talking about the function of the speech-language pathologist, the doctors interviewed emphasized the importance of multidisciplinary work in the rehabilitation of those patients.³ Although directing his patients to SLP with the intention to perfect and to automate speech abilities, S1 questions the importance of the speech-language pathologist in the rehabilitation process. For him, the patient with PTE without adaptation complications is able to speak independently to the performance of the team,²⁶ unlike what is affirmed in the study of Brown et al.³ that sustains that SLP performance and good contact with the doctor are fundamental in the recovery.

For S1, SLP work facilitates the patient to be able to automate the acquired abilities in the medical clinic and for the doctor to give explanations to the patients on PTE cleaning and hygiene. S1 also mentions that in that phase, patient adherence to treatment is difficult and the greatest moment of SLP performance is in the perfection of communication. S2, valuing SLP work, says that what the doctor is capable of doing at the clinic is not enough, but that the speech-language pathologist makes a difference in the expressive aspects of the patients. It is noted by S2 that the expressiveness is the differential that the speech-language pathologist can offer to the patient and is intimately linked to the acceptance of the new voice. For S3, the function of the speech-language pathologist is to rehabilitate the speech and the deglutition of patients, adapting if it feels well, independent of the chosen method for communication.

As to SLP procedures described by the interviewed doctors, reference was found to work with breathing control, coordination between breathing and occlusion of the stoma, explanations of hygiene care to the prosthesis,

intensity modulation, pitch modulation, articulation, speech speed and intonational variation^{16,18} (Costa et al., 2001; Oliveira et al., 2005), and work with expressive material as music^{16,18} (Costa et al., 2001; Oliveira et al., 2005) and poetry.¹³ S3 also mentions that the contact with patients in the same situation, who were rehabilitated, if done with care, is a good motivational support and should be encouraged.¹³

It is noted that the naturalness of the communication is an aspect cited by all the interviewees. Besides the inherent aspects to the adaptation as control and coordination of breathing, articulation, tension and constriction, among others, all the interviewees mentioned that the ideal expected of the speech-language pathologist is that they act directly in the social reintegration of that patient through communication.¹² The rehabilitation would be ruled within the reach of the vocal and communicative autonomy, through perfection work with the resources that the prosthesis offers.

S2 points out that the great advantage of PTE rehabilitation resides in the relationship of the shortest time for speech acquisition, with an acceptable vocal quality, harnessed to the consequent improvement of the patient's quality of life.^{2,33} It is noted in the comments of S2 that the advantages corresponding to good adaptation of the prosthesis can be potentiated by the contact with the speech-language pathologist, giving the case a greater chance of being considered a success.

GU

All of the users interviewed gave a positive evaluation of their contact with a speech-language pathologist. However, U2 longs for the withdraw of the prosthesis, attributing that desire to inherent problems to PTE such as high cost, the need of constant changes, hygiene execution, leaks and the use of one hand to speak^{6-8,34-35}

The familiarity among laryngectomized patients is an agent that can potentiate rehabilitation, as it is directly related to social inclusion. Quality of life measurement indexes point out that this is one of the main evaluation factors for laryngectomized patients, as the social consequences of the surgery in general are innumerable.³⁶ The tracheoesophageal prosthesis is considered by many as the means of rehabilitation whose users accumulate higher quality of life scores once capable of using the PTE resources, feeling ready to socialize in group with a voice considered as acceptable and pleasant, within their limites.^{1-2,33}

GP, GS And GU

Starting from the comments of the interviewees, it is inferred that there are three principles of SLP performance with the users of PTE:

- Mediate the adaptation of the patient to PTE;
- Recommend techniques for phonation;
- Provide conditions so that the patient is expressed.

The comments of the speech-language pathologists interviewed revolved predominantly around the technical aspects of the rehabilitation. When asked about the details of a successful therapeutic process, their comments predominantly contained a description of procedures, although, as exposed previously in this session, the success is not necessarily attributed to the technique in the vision of the interviewed but to good prognosis, medical knowledge and the condition of the patient. However, it is observed that few specific techniques were remembered by patients, even when asked directly in that respect. Likewise, the doctors that refer their patients for SLP therapy mention, besides specific objectives that are awaited to be reached by SLP rehabilitation, their concern with the patient's reintegration, naturalness and functionality of communication, emphasizing, as well as the patients, that the SLP work contributes to the improvement of the quality of life after surgery.

When studying the SLP literature on the therapy of PTE users, it is noted that there are few references concerning the therapeutic process as stated. The works published that deal with the subject are, in majority, found in textbooks and there are few articles on the therapeutic process. Among the articles, cited as example, is the work of Oliveira et al.¹⁸ which describes in full detail in the enclosures the strategies used in each therapeutic session proposed by the authors. Most of the articles found in the literature seek to study isolated parameters, such as maximum time of phonation, frequency control and vocal intensity.²⁹⁻³⁰ Starting from the principle that when the sum of the parts of the therapeutic process discussed is not equivalent to the whole, the authors point out a scarcity of scientific articles that deal with SLP therapy with those patients.

Thus, taking into account the data found in the literature and those originating from of the comments of the subjects of this research, it can be affirmed that the SLP discourse is in keeping with the existent literature in the area to that respect. The function of the speech-language pathologist propitiating conditions so that the

user adapts to the prosthesis is a consensus among the groups. However, doctors and users seem to move beyond in relation to what is described in the literature and point for the need of therapeutic practices that allow the patient to express in a freer and more natural way, taking advantage of the resources that the prosthesis offers.

When seeking works on listening and reception of those subjects, it is noted that this is another rare topic in SLP literature. It is curious to bring up that the area concerned in studying that aspect is nursing. The references found in that field have as objective to describe, analyze and compare the tracheoesophageal voice with the other means of alaryngeal voice production.^{3-6,8} Therefore, we suggest that the reason for which SLP practices are described by their own professionals is the inclination the technique has in relation with the nature of national and international technical production in the area.

Although the practice of listening and reception is being done by nurses, this function should also be of the speech-language pathologist, who as the professional that takes care of speaking and hearing, should have as attribution the listening to the patient who has lost their voice and is looking for new speech. The elements attributed to those conversations serve as important agents in SLP therapy, mainly that which plays in the recognition and acceptance of the new corporal-vocal image and the construction of a new form of communication. Thus, in that sense, to serve as elements in the understanding of subjects that would be generating excessive corporal tension or affliction in the occlusion of the stoma to communicate.

In the comments of the doctors interviewed, no consensus was observed that SLP therapy is fundamental³ but that the speech-language pathologist can and should act mainly with the subjects of communication in general, by means of exercises that work the expressiveness, or by means of a refinement, or use of the resources promoted by the prosthesis. Thus, the members of GS hope SLP therapy positively influences the quality of life of the patient through the recovery of functional vocal communication.

Accordingly, it is understood that each of the groups mentioned the most important aspects of an ideally successful treatment, which can be summarized as: that which, in the end, allows the patient to take care of their prosthesis; to use it to speak in common social situations with a voice accepted by them and those that surround and that thus allows a quality of life within reasonable standards.¹³ In the comments of the interviewed patients, a marked presence of the social reintegration seen as a

great gain for SLP therapy is noted. From the comments of the speech-language pathologists of GP, it is observed that the treatment considered successful is the one in which the patient uses the prosthesis as a principle means of communication. The doctors of GS tend to see success as the naturalness and for the mastery that the patient has with their prosthesis, their handling, the offered resources and their voice.

So that a SLP therapeutic process has success within what is expected by the members of the three groups, all of the aspects mentioned above deserve attention. Hence, it seems that the "fast" therapy time cited by the members of GP cannot be enough. As pointed out by one of the members of GU, the duration of the therapy should have some relationship with the size of the loss, so that the mentioned aspects come to be approached with depth and the patient can be accompanied and to have supervised time to assimilate so many changes at the same time.

In that aspect, it stood out that the members of GP seem to maintain the patient in therapy until they can sufficiently master the use of the prosthesis as a principle means of communication, if that is their desire. However, when considering the own professionals' distancing in relation to the patient's new voice, they see that expressiveness work is still quite incipient. It is important to underscore that a voice that is not produced by a subject, as it is pointed out by one of the members of GS, doesn't have possible expressive work. It will only be when there is a belief that the prosthesis users speak (instead of "phonar" or "produce voice") that one can discern a work that takes into account the feelings, the emotions, the subjectivity and their relationships with voice.

The first great gains of therapy would be the success in the simple act of communicating with voice and in the mastery of all of the processes involved in that new speech. However, it is from that point that the patients can bring the related questions of this communication that many times, as pointed out by U1, doesn't seem as anything than what happened before the disease and the surgery. For reasons related to the desire of the patient or for receiving therapeutic discharge, it is at that moment that many processes are initially interrupted, as shown by the members of GS and GU. However, subjects of the same groups mention that, in some cases, there is a retaking of the SLP therapeutic process, not because of failure, but for the own restlessness of the human being that looks for satisfaction and is not made comfortable in situations that could at first seem sufficient, but whose difficulties were overcome.^{4,31}

Although a member of GP diminishes the importance of SLP contact with the patient before surgery, due to the patience and knowledge attributed to the doctor of the team, one of the doctors interviewed, as well as one of the patients, explicitly stated the importance of the speech-language pathologist's contact with the family and the patient before the surgery, or even in the hospital bed. Thus, it is believed that this situation should occur whenever possible, once trust and bond is established for the patient¹³ and for important postoperative SLP therapy data for the professional. It is important for them to know the patient when still speaking with laryngeal voice and to evaluate communication as a whole. In that way, an individualized treatment can be planned, emphasizing specific aspects of the context of each, without the therapeutic practices that can constitute the variety of a list, the type "without many secrets", as one of the interviewees put it. That "secret" is the part of any therapeutic process of clinical SLP therapy and resides in knowing to find what is unique in each case, within the specific conjuncture, as much as the alteration that the patient brings with their subjectivity.

The subject of multidisciplinary work should also be approached. The members of GP mention that this work refers to eventual consultations to the surgeon on problems presented by the patients in therapy, or to preoperative orientation made by the doctor. Also, two members of GS mentioned that subject, affirming, unlike GP, that the ideal rehabilitation of the laryngectomized subject is multidisciplinary and includes a speech-language pathologist as a member of the team.¹² One of the members of GU mentions in their comments of the lack of disclosure regarding SLP work in orientations given by oncologists concerning the necessary phases for rehabilitation. However, they see that the reference, when it exists, as a multi- and not inter- or trans- discipline work. Thus, it is noted that the vision is a range of professionals involved in rehabilitation, but that each one acts in their space seemingly without great interaction, complementing the knowledge or discussion on possible divergences.

Final Considerations

In agreement with the participant subjects of the research, the SLP practice with the users of PTE are noted by the following principles: measure the adaptation of the patient to their prosthesis; supply subsidies so that the patient can speak with a socially acceptable and reasonably pleasant voice and to propitiate a space so that the user can

develop their expression in a way to reintegrate in social activities. When analyzing the noted principles, inserted in the context of the interviewees' comments, it is noted that in the end, the largest objective of therapy is, through means of rehabilitation of communication, to improve the quality of life of the laryngectomized patients. The methods for which that occurs depends on the phase of the rehabilitation in that the patient is encountered, but varies from orientations in the preoperative period, to hospital bed visits and specific techniques to coordinate the occlusion of the stoma and speech, increasing the maximum time of phonation, modulation of pitch and loudness, among others.

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